



AGRICULTURAL SUPPLIES



THE
WHITMAN & BARNES
MFG. CO.

FOR SALE BY
GRIFFITH & TURNER CO.
BALTIMORE, MD.

CATALOGUE NUMBER 68

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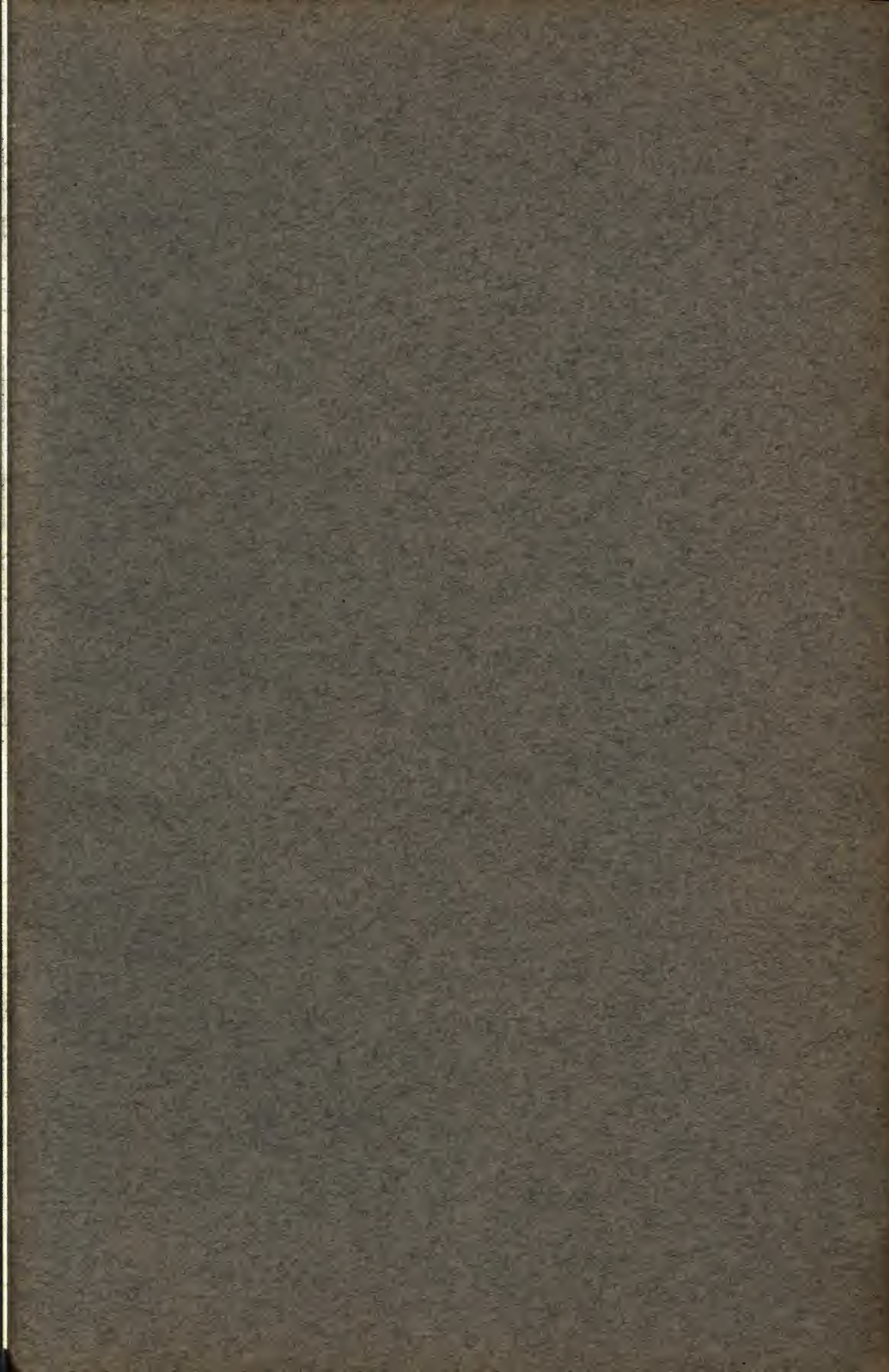
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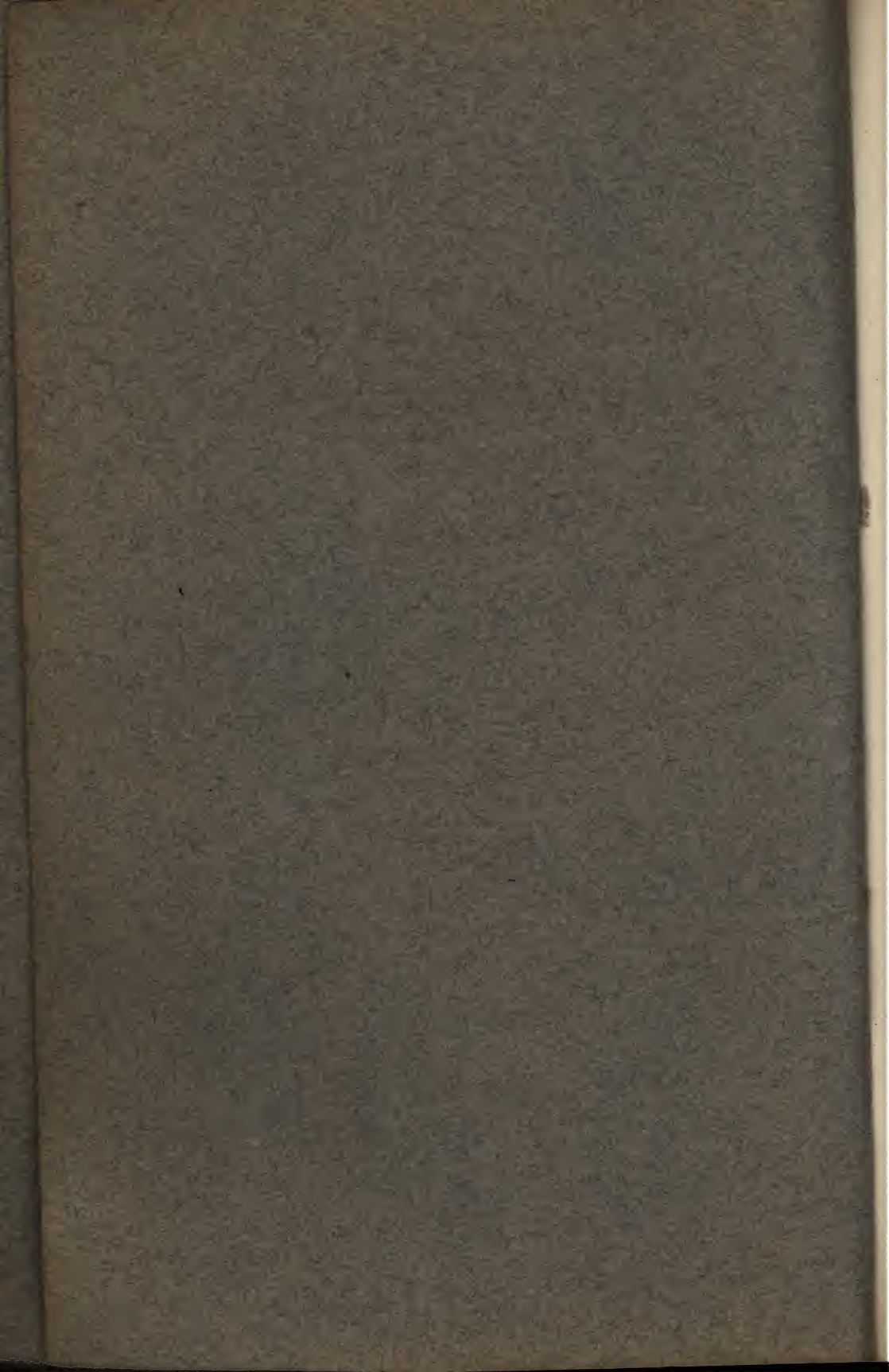
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CATALOGUE NUMBER 68

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The Whitman & Barnes Manufacturing Co.

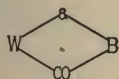
Established 1854
Incorporated 1877

MANUFACTURERS OF AND DEALERS IN

Mower Knives, Harvester Sickles, Mower and
Binder Sections, Guards, Guard Plates,
Knife and Sickle Heads, Pitman Straps,
Pitman Boxes, Wearing Plates
And Other Cutting Parts for
Mowers and Binders

"Diamond" Haying Tools, "W. & B." Lawn Mowers,
Tubular Steel and Wood Frame Grindstones,
"Diamond" Knife Grinders, Link Chain Belting,
"Diamond" Twist Drills and Reamers, Spring
Cotters and Keys, Wrenches, Oilers
And Other Agricultural and
Machinists' Supplies

In Ordering Goods Contained in This Catalogue, Kindly Quote Catalogue Information,
Either by Number or Description, thus Avoiding Delay in Filling Orders



Trade Marks



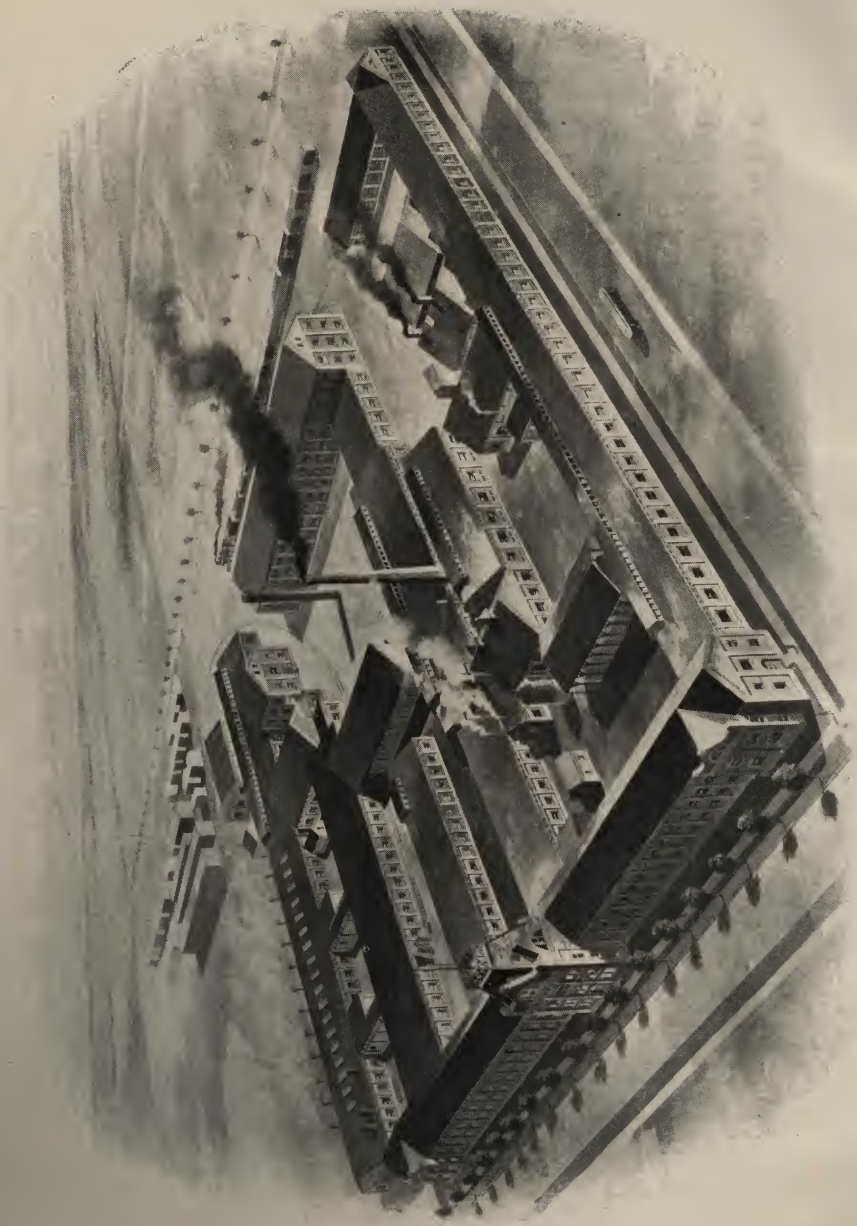
March 15th, 1908.

Factories:

AKRON, OHIO CHICAGO, ILLINOIS
ST. CATHARINES, ONTARIO, CANADA

General Sales Office:

CHICAGO, ILLINOIS



A VIEW OF OUR FACTORY AT CHICAGO, ILLINOIS



A VIEW OF OUR FACTORY AT AKRON, OHIO

To the Implement *and* Hardware Trade



We are the oldest and largest manufacturers of Mower Knife and Harvester Sickle Sections in the world. We are the only manufacturer who can furnish all patterns complete, guaranteed to fit the machines for which they are intended. Other manufacturers but imitate our goods, and so far as possible copy our methods. The principal American makers of Mowers, Binders and Harvesters use our goods, knowing that the manufacture of Sections of proper quality and temper is a branch of scientific mechanical work which can only be successfully handled as a specialty and in a large way, and recognizing the fact that no single builder of

Harvesting Machinery can use Sections in sufficient quantity to make it possible to manufacture them economically and efficiently.

Our goods are the standard of excellence in their class. We employ skilled workmen. We have the most perfect machinery. We use the very best material.

To our line of *Mower and Harvester Knives, Sickles, Sections* and other *Cutting Parts*, we have added complete lines of "*Diamond*" *Haying Tools*, "*W & B*" *Lawn Mowers*, *Tabular Steel and Wood Frame Grindstones*, "*Diamond*" *Garden Cultivators*, "*Diamond*" *Twist Drills and Reamers*, *Spring Cotters and Keys* and a complete line of *Wrenches*, including *Agricultural, Machinists' Knife Handle, Railroad Special, "W & B" Combination, Always Ready, Bull Dog* and *Drop Forged Wrenches*.

All of the above lines are made from the very best of material and are of the highest standard of quality.

Complete descriptions of these various lines, together with other items which we make in our own factories and other lines of hardware and implement supplies, which are made especially for us under our supervision, are shown in this Catalogue.

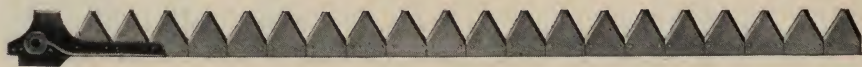
Wherever Affixed, These



May be Considered a Guarantee of Excellence

The Whitman & Barnes Manufacturing Co.

Mower and Reaper Smooth Knives



Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Abacot	12	Automatic Mower, Malleable Head, No. 582.....	17	3x3 $\frac{5}{16}$	\$5.60	\$0.80
Abaft	12A	Automatic Mower, Malleable Head, No. 582.....	20	3x3 $\frac{5}{16}$	6.30	.80
Abaiser	12B	Automatic Mower, Malleable Head, No. 582.....	24	3x3 $\frac{5}{16}$	7.20	.80
Aband	12C	Automatic Mower, Malleable Head, No. 582.....	28	3x3 $\frac{5}{16}$	8.00	.80
Academe	21	Acme, Mower, 1896-97, Malleable Head, No. M85.....	17	3x3 $\frac{3}{16}$	5.50	.80
Acadian	21A	Acme, Mower, 1896-97, Malleable Head, No. M85.....	18	3x3 $\frac{3}{16}$	5.60	.80
Acantha	21B	Acme, Mower, 1896-97, Malleable Head, No. M85.....	20	3x3 $\frac{3}{16}$	6.10	.80
Accolade	21C	Acme, Mower, 1896-97, Malleable Head, No. M85.....	24	3x3 $\frac{3}{16}$	6.90	.80
Accolent	21D	Acme, Hercules Mower, 1898-99, Malleable Head, No. M141.....	18	3x3 $\frac{3}{16}$	5.70	.80
Accost	21E	Acme Hercules Mower, 1898-99, Malleable Head No. M141	20	3x3 $\frac{3}{16}$	6.10	.80
Accostable	21F	Acme, Hercules Mower, 1898-99, Malleable Head, No. M141.....	24	3x3 $\frac{3}{16}$	6.90	.80
Account	21AA	Acme, Hercules Mower, 1898-99, Malleable Head, No. M141.....	17	3x3 $\frac{3}{16}$	5.50	.80
Accountable	21AB	Acme, Hercules Mower, 1899-00, Malleable Head, No. M185.....	17	3x3 $\frac{3}{16}$	5.50	.80
Accountant	21AC	Acme, Hercules Mower, 1899-00, Malleable Head, No. M185.	18	3x3 $\frac{3}{16}$	5.70	.80
Accounted	21AD	Acme, Hercules Mower, 1899-00, Malleable Head, No. M185.....	20	3x3 $\frac{3}{16}$	6.10	.80
Accounting	21AE	Acme, Hercules Mower, 1899-00, Malleable Head, No. M185.....	24	3x3 $\frac{3}{16}$	6.90	.80
Accosted	21G	Acme, Flax, Malleable Head, 4036, R. H. Small Binder, 1899-00.....	24	3x2	6.50	1.20
Accosting	21H	Acme, Flax, Malleable Head, 4036, R. H. Small Binder, 1899-00	28	3x2	7.10	1.20

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Accommodate	21HA	Acme, Malleable Head T6, Pony Mower, 1900 and since.....	14	3x3 $\frac{3}{16}$	\$4.90	\$0.80
Accommodated	21HB	Acme, Malleable Head T6, Pony Mower, 1900 and since.....	16	3x3 $\frac{3}{16}$	5.30	.80
Accommodately	21HC	Acme, Malleable Head T6, New Hodges Mower, 1901 and since.....	17	3x3 $\frac{3}{16}$	5.50	.80
Accosant	21I	Acme, Malleable Head T6, New Hodges Mower, 1901 and since.....	18	3x3 $\frac{3}{16}$	5.70	.80
Accuse	21J	Acme, Malleable Head T6, New Hodges Mower, 1901 and since.....	20	3x3 $\frac{3}{16}$	6.10	.80
Accustom	21K	Acme, Malleable Head T6, New Hodges Mower, 1901 and since.....	24	3x3 $\frac{3}{16}$	6.90	.80
Accurse	21L	Acme, Malleable Head T6, New Hodges Mower, 1901 and since.....	28	3x3 $\frac{3}{16}$	7.70	.80
Accursed	21M	Acme, Flax, Malleable Head V40, Hodges Queen Bind- er L. H., 1901 and since..	20	3x2 $\frac{1}{2}$	5.35	.60
Accusable	21N	Acme, Flax, Malleable Head V40, Hodges Queen Bind- er L. H., 1901 and since..	24	3x2 $\frac{1}{2}$	6.00	.60
Accusant	21O	Acme, Flax, Malleable Head V40, Hodges Queen Bind- er L. H., 1901 and since..	28	3x2 $\frac{1}{2}$	6.95	.60
Accusation	21P	Acme, Flax, Malleable Head V258, Hodges Queen Bind- er R. H., 1902 and since..	20	3x2 $\frac{1}{2}$	5.35	.60
Accustomary	21Q	Acme, Flax, Malleable Head V258, Hodges Queen Bind- er R. H., 1902 and since..	24	3x2 $\frac{1}{2}$	6.00	.60
Accustomed	21R	Acme, Flax, Malleable Head V258, Hodges Queen Bind- er R. H., 1902 and since..	28	3x2 $\frac{1}{2}$	6.95	.60
Acold	23	Adriance, Reaper, Malleable Head, No. 959.....	18	3x3 $\frac{1}{8}$	5.70	.80
Acop	24	Adriance, Reaper, Malleable Head, No. 959.....	20	3x3 $\frac{1}{8}$	6.10	.80
Amadine	25A	American, Grass Twine Co., Malleable Head, No. M1081, Minnie Mower, 1902.....	18	3x3 $\frac{1}{8}$	4.70	.60
Amadou	25B	American, Grass Twine Co., Malleable Head, No. M1081, Minnie Mower, 1902.....	20	3x3 $\frac{1}{8}$	5.10	.60
Amass	25C	American, Grass Twine Co., Malleable Head, No. M1081, Minnie Mower, 1902.....	24	3x3 $\frac{1}{8}$	5.90	.60

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Amaze	26	American, Harvester Co., Mal- leable Head, M.	20	3x3 $\frac{5}{16}$	\$5.90	\$0.80
Amazement	26A	American, Harvester Co., Mal- leable Head, M.	24	3x3 $\frac{5}{16}$	6.70	.80
Amazing	26B	American, Harvester Co., Mal- leable Head, M.	28	3x3 $\frac{5}{16}$	7.50	.80
Affluence	37	Ann Arbor, Agl. Co., Mower, Malleable Head, No. 53. . .	21	2 $\frac{1}{2}$ x3 $\frac{1}{4}$	5.30	.70
Afflux	38	Ann Arbor, Agl. Co., Mower, Malleable Head, No. 53. . .	20	2 $\frac{1}{2}$ x3 $\frac{1}{4}$	5.15	.70
Acorn	40M	Buckeye, Flax Head, H955, Frameless Binder, 1902. . .	20	3x3 $\frac{3}{8}$	6.10	1.00
Accross	40N	Buckeye, Flax Head, H955, Frameless Binder, 1902. . .	24	3x3 $\frac{3}{8}$	6.90	1.00
Active	40O	Buckeye, Flax Head, H955, Frameless Binder, 1902. . .	28	3x3 $\frac{3}{8}$	7.70	1.00
Balsam	62	Buckeye, Light Mower, Adj. Pitman, '76, and since. . .	16	3x3 $\frac{9}{16}$	5.60	1.30
Balter	63	Buckeye, Light Mower, Adj. Pitman, '76, and since. . .	17	3x3 $\frac{9}{16}$	5.80	1.30
Baluster	64	Buckeye, Light Mower, Adj. Pitman, '76, and since. . .	18	3x3 $\frac{9}{16}$	6.00	1.30
Buccal	65	Buckeye, (Akron) Adjustable Detached Head, No. 301, 1876-87.	17	3x3 $\frac{9}{16}$	5.80	1.20
Buceros	65A	Buckeye, (Akron), Adjustable Detached Head, No. 301, 1876-87.	18	3x3 $\frac{9}{16}$	6.00	1.20
Bathchair	65B	Buckeye, (Akron), Adjustable Detached Head, No. 301, 1876-87.	20	3x3 $\frac{9}{16}$	6.40	1.20
Bega	65U	Buckeye, (Akron), Light Mower Head, No. 301, 1889-90. . .	16	3x3 $\frac{3}{8}$ LP	5.50	1.20
Baby	65V	Buckeye (Akron), Light Mower, Head No. 301, 1892-94. . .	15	3x3 $\frac{3}{8}$ LP	5.30	1.20
Babery	66	Buckeye (Akron), New Mower, Adjustable Pitman, Head No. 301, 1887-94; Light Buckeye, 1892-94.	17	3x3 $\frac{3}{8}$ LP	5.70	1.20
Bablah	66A	Buckeye (Akron), New Mower, Adjustable Pitman, Head, No. 301, 1886 and since. . .	18	3x3 $\frac{3}{8}$ LP	5.90	1.20
Backare	66B	Buckeye (Akron), New Mower, Adjustable Pitman, Head No. 301, 1886 and since; Buckeye Mower, 1888-94. .	20	3x3 $\frac{3}{8}$ LP	6.30	1.20
Bathometer	66C	Buckeye (Akron), Mower, Head, No. 301, 1888-94.	24	3x3 $\frac{3}{8}$ LP	7.10	1.20
Baker	66D	Buckeye (Akron), Mower, Head, No. 301, 1889-94.	28	3x3 $\frac{3}{8}$ LP	7.90	1.20
Buckingiron	67	Buckeye (Akron), Wrought Head, No. 864, Light Mower, 1895-01.	15	3x3 $\frac{3}{8}$ HP	5.30	1.20
Buckle	67AA	Buckeye (Akron), Wrought Head, No. 864, Light Mower, 1892-1901.	14	3x3 $\frac{3}{8}$ HP	5.10	1.20

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Buckingplate	67A	Buckeye (Akron), Wrought Head, No. 864, Light Mower, 1895-01	17	3x3 $\frac{3}{8}$	H.P. \$5.70	\$1.20
Bucking	67B	Buckeye (Akron), Wrought Head, No. 864, Light Mower, 1895-1900, Buckeye Mower, 1895-01	18	3x3 $\frac{3}{8}$	H.P. 5.90	1.20
Buckie	67C	Buckeye , (Akron) Wrought Head, No. 864, Buckeye Mower, 1895-01	20	3x3 $\frac{3}{8}$	H.P. 6.30	1.20
Buckeye	67D	Buckeye , (Akron) Wrought Head, No. 864, Buckeye Mower, 1895-01	24	3x3 $\frac{3}{8}$	H.P. 7.10	1.20
Barger	82P	Buckeye , Flax, (Akron), Head, E107, Reel Rake Machine, 1898 and since	17	3x3 $\frac{3}{8}$	H.P. 5.30	.80
Baria	82Q	Buckeye , Flax, (Akron), Head E107, Reel Rake Machine, 1898 and since	20	3x3 $\frac{3}{8}$	H.P. 5.90	.80
Barilla	82T	Buckeye , (Akron), "Crane or Frameless," Flax, Wrot. Head, H700, 1891-1901...	20	3x3 $\frac{3}{8}$	L.P. 6.10	1.00
Barillet	82U	Buckeye , (Akron), "Crane or Frameless," Flax, Wrot. Head, H700, 1891-1901...	22	3x3 $\frac{3}{8}$	L.P. 6.50	1.00
Baritone	82V	Buckeye , (Akron), "Crane or Frameless," Flax, Wrot. Head, H700, 1891-1901...	24	3x3 $\frac{3}{8}$	L.P. 6.90	1.00
Bark	82W	Buckeye , (Akron), "Crane or Frameless," Flax, Wrot. Head, H700, 1891-1901...	25	3x3 $\frac{3}{8}$	L.P. 7.10	1.00
Barker	82X	Buckeye , (Akron), "Crane or Frameless," Flax, Wrot. Head, H700, 1891-1901...	28	3x3 $\frac{3}{8}$	L.P. 7.70	1.00
Barkless	82Y	Buckeye , (Akron), "Crane or Frameless," Flax, Wrot. Head, H700, 1891-1901...	29	3x3 $\frac{3}{8}$	L.P. 7.90	1.00
Barley	82AA	Buckeye , (Akron), Center Draft, No Head, Ends Slotted, 1898-01	24	3x3 $\frac{3}{8}$	L.P. 6.90	
Barm	82AB	Buckeye , (Akron), Center Draft, No Head, Ends Slotted, 1898-01	28	3x3 $\frac{3}{8}$	L.P. 7.70	
Barnacle	82AC	Buckeye , (Akron) Center Draft, No Head, Ends Slotted, 1898-01	32	3x3 $\frac{3}{8}$	L.P. 8.50	
Barolite	82AD	Buckeye , (Akron), Wrought Head, No. 864, Buckeye, 1901-02	20	3x3 $\frac{9}{16}$	6.40	1.20
Bare	82AE	Buckeye , (Akron), Wrought Head, No. 864, Buckeye Light Mower, 1902 and since	14	3x3 $\frac{9}{16}$	5.20	1.20

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives each	Price of Extra Heads each
Baret	82AK	Buckeye , (Akron), Head, No. 864, Buckeye, 1901-02; Light Buckeye, 1901 and since.....	18	3x3 $\frac{1}{16}$	\$6.00	\$1.20
Barrator	82AL	Buckeye , (Akron), Head, No. 864, Buckeye, 1901-02....	24	3x3 $\frac{1}{16}$	7.20	1.20
Baronage	82AF	Buckeye , (Akron), Malleable Head, No. 1052.....	18	3x3 $\frac{1}{16}$	5.60	.80
Baroness	82AG	Buckeye , (Akron), Malleable Head, No. 1052.....	20	3x3 $\frac{1}{16}$	6.00	.80
Baronet	82AH	Buckeye , (Akron), Malleable Head, No. 1052.....	24	3x3 $\frac{1}{16}$	6.80	.80
Bastile	95	Buckeye , (N. Y.), Reaper, Malleable Head, No. 959, 1876 and since.....	21	3x3 $\frac{1}{8}$	6.15	.80
Batch	96	Buckeye , (N. Y.), Reaper, Malleable Head, No. 959, 1876 and since.....	20	3x3 $\frac{1}{8}$	6.10	.80
Batter	99	Buckeye , (N. Y.), New Model and sizes, A, B, E and F, Malleable Head, No. 724..	18	3x3 $\frac{1}{8}$	5.70	.80
Battery	99A	Buckeye , (N. Y.), New Model and sizes, A, B, E and F, Malleable Head, No. 724..	20	3x3 $\frac{1}{8}$	6.10	.80
Barn	99B	Buckeye , (N. Y.), New Model and sizes, A, B, E and F, Malleable Head, No. 724..	24	3x3 $\frac{1}{8}$	6.90	.80
Battle	100	Buckeye , (N. Y.), New Model and sizes, A, B, E and F, Malleable Head, No. 724..	17	3x3 $\frac{1}{8}$	5.50	.80
Beach	101	Buckeye , (N. Y.), New Model and sizes, A, B, E and F, Malleable Head, No. 724..	16	3x3 $\frac{1}{8}$	5.30	.80
Bemuse	101A	Buckeye , (Worcester), Malleable Head, U2A, 1888 and since.....	17	3x3 $\frac{1}{8}$	5.50	.80
Bever	101AB	Buckeye , (Worcester), Malleable Head, U2A, 1888 and since.....	18	3x3 $\frac{1}{8}$	5.70	.80
Benzile	101B	Buckeye , (Worcester), Malleable Head, U2A, 1888 and since.....	19	3x3 $\frac{1}{8}$	5.90	.80
Beguiler	101C	Buckeye , (Worcester), Malleable Head, U2A, 1888 and since.....	20	3x3 $\frac{1}{8}$	6.10	.80
Buckmate	101D	Buckeye , (Worcester), Malleable Head, U2A, 1888 and since.....	24	3x3 $\frac{1}{8}$	6.90	.80
Buckstall	101AA	Buckeye , (Worcester), Malleable Head, U2B, Nos. 5 and 6 Mowers, 1902; Chain Gear "B" and "A" Mowers	18	3x3 $\frac{1}{8}$	5.70	.80
Buccan	101BB	Buckeye , (Worcester), Malleable Head, U2B, Nos. 5 and 6 Mowers, 1902; Chain Gear "B" and "A" Mowers	20	3x3 $\frac{1}{8}$	6.10	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Bucrania	101CC	Buckeye , (Worcester), Malleable Head, U2B, Nos. 5 and 6 Mowers, 1902; Chain Gear "B" and "A" Mowers	24	3x3 $\frac{1}{8}$	\$6.90	\$0.80
Bonding	101F	Buckeye , (Worcester), 1893, Malleable Head, No. F55...	16	3x3 $\frac{1}{8}$	5.30	.80
Bumbard	101K	Buckeye , (Adriance), Solid Malleable Head, 557B, size H Mower.....	16	3x3 $\frac{1}{8}$	5.30	.80
Bumbast	101L	Buckeye , (Adriance), Solid Malleable Head, 557B, size H Mower.....	17	3x3 $\frac{1}{8}$	5.50	.80
Bumble	101M	Buckeye , (Adriance), Solid Malleable Head, 557B, Size H Mower.....	18	3x3 $\frac{1}{8}$	5.70	.80
Bumboat	101N	Buckeye , (Adriance), Solid Malleable Head, 557B, size H Mower.....	20	3x3 $\frac{1}{8}$	6.10	.80
Bumkin	101O	Buckeye , (Adriance), Solid Malleable Head, 557B, size H Mower.....	24	3x3 $\frac{1}{8}$	6.90	.80
Bone	102	Buckeye , (Adriance), H Mower, Malleable Head, 557C....	17	3x3 $\frac{1}{8}$	5.60	1.20
Bonedust	102A	Buckeye , (Adriance), H Mower, Malleable Head, 557C....	18	3x3 $\frac{1}{8}$	5.75	1.20
Bonelace	102B	Buckeye , (Adriance), H Mower, Malleable Head, 557C....	20	3x3 $\frac{1}{8}$	6.10	1.20
Boneset	102C	Buckeye , (Adriance), H Mower, Malleable Head, 557C....	24	3x3 $\frac{1}{8}$	6.90	1.20
Buckbasket	102E	Buckeye , (Adriance), Foreign, Malleable Head, 557E....	16	3x3 $\frac{1}{8}$	5.50	1.20
Buckbean	102F	Buckeye , (Adriance), Foreign, Malleable Head, 557E....	17	3x3 $\frac{1}{8}$	5.60	1.20
Buckboard	102G	Buckeye , (Adriance), Foreign, Malleable Head, 557E....	18	3x3 $\frac{1}{8}$	5.75	1.20
Burlot	102P	Buckeye , (Adriance), Malleable Head, 557F, Nos. 7, 8, 9, 10 and size H Mowers...	16	3x3 $\frac{1}{8}$	5.30	.80
Burdelaiss	102Q	Buckeye , (Adriance), Malleable Head, 557F, Nos. 7, 8, 9, 10 and size H Mowers...	17	3x3 $\frac{1}{8}$	5.50	.80
Burdock	102R	Buckeye , (Adriance), Malleable Head, 557F, Nos. 7, 8, 9, 10 and size H Mowers.....	18	3x3 $\frac{1}{8}$	5.70	.80
Burg	102S	Buckeye , (Adriance), Malleable Head, 557F, Nos. 7, 8, 9, 10 and size H Mowers....	20	3x3 $\frac{1}{8}$	6.10	.80
Burgee	102T	Buckeye , (Adriance), Malleable Head, 557F, Nos. 7, 8, 9, 10 and size H Mowers....	24	3x3 $\frac{1}{8}$	6.90	.80
Boom	103	Buckeye , (Adriance), Foreign, Malleable Head, 724A....	17	3x3 $\frac{1}{8}$	5.50	.80
Bauble	104	Buckeye , N. Y., 1892 and since, Malleable Head, No. 363; Adriance Enclosed Gear, size "G" Mower.....	16	3x3 $\frac{1}{8}$	5.30	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives each	Price of Extra Heads each
Baudkin	104A	Buckeye , N. Y., 1892 and since, Malleable Head, No. 363; Adriance Enclosed Gear, size "G" Mower.....	17	3x3 $\frac{1}{2}$	\$5.50	\$0.80
Baudric	104B	Buckeye , N. Y., 1892 and since, Malleable Head, No. 363; Adriance Enclosed Gear, size "G" Mower.....	18	3x3 $\frac{1}{2}$	5.70	.80
Bauge	104C	Buckeye , N. Y., 1892 and since, Malleable Head, No. 363; Adriance Enclosed Gear, size "G" Mower.....	20	3x3 $\frac{1}{2}$	6.10	.80
Baulk	104D	Buckeye , N. Y., 1892 and since, Malleable Head, No. 363; Adriance Enclosed Gear, size "G" Mower.....	24	3x3 $\frac{1}{2}$	6.90	.80
Begloom	105	Buckeye , (Adriance), Malleable Head, No. 824, One Horse, size "C" Mower.....	13	3x3 $\frac{1}{2}$	4.70	.80
Beguide	105A	Buckeye , (Adriance), Malleable Head, No. 824, One Horse, size "C" Mower.....	14	3x3 $\frac{1}{2}$	4.90	.80
Booby	105B	Buckeye , (Adriance), Malleable Head, No. 824, One Horse, size "C" Mower.....	16	3x3 $\frac{1}{2}$	5.30	.80
Book	105D	Buckeye , (Adriance), Foreign Mower, Malleable Head, No. 824A.....	14	3x3 $\frac{1}{2}$	4.90	.80
Bookcase	105F	Buckeye , (Adriance), Binder, Malleable Head, No. 1245A	18	3x3 $\frac{1}{2}$	5.35	1.20
Bookmark	105G	Buckeye , (Adriance), Binder, Malleable Head, No. 1245A.....	20	3x3 $\frac{1}{2}$	5.70	1.20
Bookish	105M	Buckeye , (Adriance), Malleable Head, No. 3059, Foreign..	14	3x3 $\frac{1}{2}$	4.90	.80
Bookless	105N	Buckeye , (Adriance), Malleable Head, No. 3059, Foreign..	18	3x3 $\frac{1}{2}$	5.70	.80
Bookland	105P	Buckeye , (Adriance), Malleable Head, No. 296, Foreign...	21	3x3 $\frac{1}{2}$	6.30	.80
Bedlam	113	Buckeye (Worcester), One Horse, Malleable Head, No. 1514.....	14	3x3 $\frac{1}{2}$	4.50	.70
Beetle	116	Buckeye , (Worcester), Malle- able Head, No. 1468.....	16	3x3 $\frac{1}{2}$	5.20	.80
Before	116A	Buckeye , (Worcester), Malle- able Head, No. 1468.....	18	3x3 $\frac{1}{2}$	5.50	.80
Buffer	116B	Buckeye , (Worcester), Malle- able Head, U3F, R. H....	16	3x3 $\frac{1}{2}$	5.30	.80
Buffle	116C	Buckeye , (Worcester), Malle- able Head, U3F, R. H....	18	3x3 $\frac{1}{2}$	5.70	.80
Buffin	116D	Buckeye , (Worcester), Malle- able Head, U3F, R. H....	20	3x3 $\frac{1}{2}$	6.10	.80
Baltimore	116E	Buckeye , (Worcester), Head W716, Black Top, No. 3, One Horse Mower.....	14	3x3 $\frac{1}{2}$	4.50	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Boston	116F	Buckeye , (Worcester), Head, W716, Black Top, 1902, No. 3, One Horse Mower..	16	3x3 $\frac{1}{8}$	\$5.30	\$0.80
Bemire	116G	Buckeye , (Worcester), Head, W716, Black Top, Nos. 5 and 6 Mowers, 1903 and since.....	18	3x3 $\frac{1}{8}$	5.70	.80
Bemoan	116H	Buckeye , (Worcester), Head, W716, Black Top, Nos. 5 and 6 Mowers, 1903 and since.....	20	3x3 $\frac{1}{8}$	6.10	.80
Bend	116I	Buckeye , (Worcester), Head, W716, Black Top, Nos. 5 and 6 Mowers, 1903 and since.....	24	3x3 $\frac{1}{8}$	6.90	.80
Bangor	122	Buckeye (Lewisburg), New Mower, Malleable Head, S., Eye, $\frac{3}{4}$ inch.....	18	3x3 $\frac{1}{8}$	5.30	.70
Bawdy	182	Bradley , Mower, No. 5, Malle- able Head, 896.....	17	3x3 $\frac{1}{8}$	5.20	.80
Bawl	182A	Bradley , Mower, No. 5, Malle- able Head, 896.....	18	3x3 $\frac{1}{8}$	5.40	.80
Bawn	182B	Bradley , Mower, No. 5, Malle- able Head, 896.....	20	3x3 $\frac{1}{8}$	5.80	.80
Bawsin	182C	Bradley , Mower, No. 5, Malle- able Head, 896.....	24	3x3 $\frac{1}{8}$	6.60	.80
Blend	183	Bradley's Mower, Malleable Globe Head, No. 313.....	17	3x3 $\frac{1}{8}$	5.20	.80
Buddha	183A	Bradley's New Mower, Malle- able Ball Head, No. 436..	17	3x3 $\frac{1}{8}$	5.20	.80
Bicycle	183B	Bradley's New Mower, Malle- able Ball Head, No. 436..	18	3x3 $\frac{1}{8}$	5.40	.80
Buxina	183E	Bradley , Malleable Head, No. 736.....	17	3x3 $\frac{1}{8}$	5.20	.80
Bilabe	183F	Bradley , Malleable Head, No. 736.....	18	3x3 $\frac{1}{8}$	5.40	.80
Bilin	183G	Bradley , Malleable Head, No. 736.....	24	3x3 $\frac{1}{8}$	6.60	.80
Billhead	193	Benicia , Mower, Malleable Head, No. 724.....	17	3x3 $\frac{1}{8}$	4.50	.50
Crotch	208G	Crown Mower , (Janesville), Malleable Head, No. 6, 1888-98.....	18	3x3 $\frac{1}{8}$	5.70	.80
Crotchet	208H	Crown Mower , (Janesville), Malleable Head, No. 6, 1888-98.....	20	3x3 $\frac{1}{8}$	6.10	.80
Crotonic	208I	Crown Mower , (Janesville), Malleable Head, No. 6, 1888-98.....	24	3x3 $\frac{1}{8}$	6.90	.80
Crouch	208J	Crown , (Janesville), Malleable Head, No. 6, $\frac{13}{16}$ x $\frac{7}{32}$ Bar, 1898 and since.....	18	3x3 $\frac{1}{8}$	5.70	.80
Croup	208K	Crown , (Janesville), Malleable Head, No. 6, $\frac{13}{16}$ x $\frac{7}{32}$ Bar, 1898 and since.....	20	3x3 $\frac{1}{8}$	6.10	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Crow	208L	Crown , (Janesville), Malleable Head No. 6, $\frac{13}{16} \times \frac{1}{4}$ Bar, 1898 and since.	24	3x3 $\frac{1}{4}$	\$6.90	\$0.80
Crowbar	208M	Crown , (Janesville), Malleable Head No. 6, $\frac{13}{16} \times \frac{1}{4}$ Bar, 1898 and since.	28	3x3 $\frac{1}{4}$	7.70	.80
Cabalist	209	Champion , Malleable Head B639, (Flax), Folding Bar Reaper, 1899-1902.	19	3x3	4.80	.70
Cab	209A	Champion , Malleable Head B639, Folding Bar Reaper, 1903 and since.	19	3x3 $\frac{3}{16}$	5.20	.70
Cabbage	209B	Champion , Malleable Head B639, Folding Bar Reaper, 1903 and since.	21	3x3 $\frac{3}{16}$	5.60	.70
Calamist	224A	Champion , Malleable Head A415, New Mowers, 1893-95; Draw Cut with Wrot. Guard Bar, 1895 and since.	18	3x3 $\frac{9}{16}$	5.00	.60
Calamite	224B	Champion , Malleable Head A415, New Mowers, 1893-95; Draw Cut with Wrot. Guard Bar, 1895 and since.	20	3x3 $\frac{9}{16}$	5.40	.60
Calamity	224C	Champion , Malleable Head A415, New Mowers, 1893-95; Draw Cut with Wrot. Guard Bar, 1895 and since.	24	3x3 $\frac{9}{16}$	6.25	.60
Calamar	224D	Champion , Malleable Head A415, Draw Cut Mower, 1898 and since.	28	3x3 $\frac{9}{16}$	7.05	.60
Calendar	224J	Champion , Malleable Head A415, One Horse Draw Cut Mower, 1903-04, New Mower, 1895-96.	14	3x3 $\frac{3}{16}$	4.20	.60
Chalder	224K	Champion , Malleable Head A415, Black Top, Hay-maker and Draw Cut Mowers, Malleable Guard Bar, 1895 and since, New Mower 1895-96.	18	3x3 $\frac{3}{16}$	5.00	.60
Chaldron	224L	Champion , Malleable Head A415, Black Top, Hay-maker and Draw Cut Mowers, Malleable Guard Bar, 1895 and since, New Mower, 1895-96.	20	3x3 $\frac{3}{16}$	5.40	.60
Chalie	224M	Champion , Malleable Head A415, Black Top, Hay-maker, Malleable Guard Bar, 1895-01; Draw Cut, Malleable Guard Bar, 1895 and since, New Mower 1895-96.	24	3x3 $\frac{3}{16}$	6.25	.60
Chaplet	224N	Champion , Head A415, Black Top, Draw Cut, Malleable Guard Bar, 1898 and since.	28	3x3 $\frac{3}{16}$	7.10	.60

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Camerate	231A	Champion , 1891-92, Malleable Head A415, New Mowers	18	3x3 $\frac{11}{32}$	\$4.90	\$0.60
Camion	231B	Champion , 1891-92, Malleable Head, A415, New Mower.	20	3x3 $\frac{11}{32}$	5.30	.60
Camis	231C	Champion , 1891-92, Malleable Head, A415, New Mower.	24	3x3 $\frac{11}{32}$	6.10	.60
Cammock	231G	Champion , 1891-92, Light Mower, Wrot. Head.....	16	3x3 $\frac{11}{32}$	4.30	1.00
Camous	231H	Champion , 1891-92, Light Mower, Wrot. Head,.....	18	3x3 $\frac{11}{32}$	4.60	1.00
Camoy's	231P	Champion , 1891-92, Light Reaper, Wrot. Head.	19	3x3 $\frac{11}{32}$	4.80	1.00
Cameo	232	Champion , Malleable Head, No. 98, New Mowers, 1887-90; Steel Mowers, 1887-88	18	3x3 $\frac{5}{16}$	4.85	.60
Camera	233	Champion , Malleable Head, No. 98, New Mowers, 1878-88.....	17	3x3 $\frac{5}{16}$	4.65	.60
Camlet	234	Champion , Malleable Head, No. 98, New Mowers, 1878-88.....	16	3x3 $\frac{5}{16}$	4.45	.60
Children	234A	Champion , One Horse Mower, Malleable Head, No. 98...	14	3x3 $\frac{5}{16}$	4.05	.60
Chromate	234B	Champion , Malleable Head, No. 98, New Mowers, 1888-90; Steel Mowers, 1887-88	20	3x3 $\frac{5}{16}$	5.25	.60
Charry	234C	Champion , Malleable Head, No. 98, New Mowers, 1889-90.....	24	3x3 $\frac{5}{16}$	6.05	.60
Chowder	234F	Champion , Harvester, Malleable Head, No. D323, 1883-94.....	21	3x3 $\frac{3}{8}$	5.70	.60
Choree	234G	Champion , Harvester, Malleable Head, No. D323, 1892-94.....	25	3x3 $\frac{3}{8}$	6.30	.60
Chops	234I	Champion , Harvester, Malleable Head, No. D323, 1892-94.....	29	3x3 $\frac{3}{8}$	6.90	.60
Camphor	234R	Champion , Road Mower, Head A567, No. 11Ga, 1899....	15	3x3 $\frac{9}{16}$	7.30	.70
Chandler	234K	Champion , Harvester, Force Feed, Malleable Head, No. 1852, 1895 and since.....	21	3x3 $\frac{3}{8}$	5.90	.80
Character	234L	Champion , Harvester, Force Feed, Malleable Head, No. 1852, 1895 and since.....	24	3x3 $\frac{3}{8}$	6.30	.80
Charter	234M	Champion , Harvester, Force Feed, Malleable Head, No. 1852, 1895 and since.....	27	3x3 $\frac{3}{8}$	6.75	.80
Camp	234N	Champion , Malleable Head, No. 1852, Force Feed Harvester, 1903 and since.	33	3x3 $\frac{3}{8}$	7.55	.80
Chartism	234P	Champion , Malleable Head, A567.....	15	3x3 $\frac{9}{16}$	5.80	.70
Char	235	Champion , Malleable Head, No. A870, One Horse Draw Cut, 1906 and since.....	14	3x3 $\frac{3}{16}$	4.25	.60

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME.	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Charneco	235A	Champion , Malleable Head, No. A870, New Draw Cut and Big Draw Cut, 1905 and since; Vertical Lift, 1904 and since.....	18	3x3 $\frac{3}{16}$	\$5.00	\$0.60
Charfron	235B	Champion , Malleable Head, No. A870, New Draw Cut and Big Draw Cut, 1905 and since; Vertical Lift, 1904 and since.....	20	3x3 $\frac{3}{16}$	5.40	.60
Charing	235C	Champion , Malleable Head, No. A870, Big Draw Cut, 1905 and since.....	24	3x3 $\frac{3}{16}$	6.25	.60
Charlatan	235D	Champion , Malleable Head, No. A870, Big Draw Cut, 1905 and since.....	28	3x3 $\frac{3}{16}$	7.10	.60
Capon	270	Clipper , Malleable Head, No. 9A.....	14	3x3 $\frac{3}{8}$	6.30	1.60
Caprice	271	Clipper , Malleable Head, No. 9A.....	16	3x3 $\frac{3}{8}$	6.70	1.60
Captain	272	Clipper , Malleable Head, No. 9A.....	17	3x3 $\frac{3}{8}$	6.90	1.60
Captor	273	Clipper , Malleable Head, No. 9A.....	18	3x3 $\frac{3}{8}$	7.00	1.60
Carat	274	Clipper , Malleable Head, No. 9A.....	20	3x3 $\frac{3}{8}$	7.40	1.60
Chill	275B	Clipper Mower (Brockport), Malleable Ball Head, No. C117, 1883.....	17	3x3 $\frac{1}{8}$	5.50	.80
Chime	275C	Clipper Mower (Brockport), Malleable Ball Head, No. C117, 1883.....	18	3x3 $\frac{1}{8}$	5.70	.80
Chimney	275D	Clipper Mower (See Triumph), Malleable Head, C139, 1885.....	17	3x3 $\frac{1}{8}$	5.50	.80
Chinch	275E	Clipper Mower (See Triumph), Malleable Head, C139, 1885.....	18	3x3 $\frac{1}{8}$	5.70	.80
Chipax	275F	Clipper Mower (See Triumph), Malleable Head, C139, 1885.....	20	3x3 $\frac{1}{8}$	6.10	.80
Damson	291	Deering's Mower , Malleable Head, No. 1668 (1882)...	22	2 $\frac{1}{4}$ x3	5.20	.80
Damsel	292	Deering's Mower , Malleable Head, No. 1668 (1882)...	24	2 $\frac{1}{4}$ x3	5.50	.80
Derelict	292A	Deering , Steel Head, No. F74, New Deering Mower, 1890- 91.....	22	2 $\frac{1}{4}$ x3 $\frac{1}{8}$	6.40	1.40
Derivate	292B	Deering , Steel Head, No. F74, New Deering Mower, 1890-91.....	24	2 $\frac{1}{4}$ x3 $\frac{1}{8}$	6.70	1.40
Dermatic	292C	Deering , Steel Head, No. F174, New Deering Mower, 1890-91.....	17	3x3 $\frac{1}{4}$	5.90	1.40

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Derogate	292D	Deering , Steel Head, No. F174, New Deering Mower, 1890-91.....	19	3x3 $\frac{1}{4}$	\$6.30	\$1.40
Dervish	292E	Deering , Steel Head, No. F84, F. C. Giant, 1890-91.....	27	2 $\frac{1}{4}$ x3 $\frac{3}{8}$	7.20	1.40
Detective	292F	Deering , Steel Head, No. F84, F. C. Giant, 1890-91.....	32	2 $\frac{1}{4}$ x3 $\frac{3}{8}$	7.90	1.40
Detaindier	292G	Deering , Steel Head, No. F84, F. C. Giant, 1890-91.....	37	2 $\frac{1}{4}$ x3 $\frac{3}{8}$	8.70	1.40
Detergent	292H	Deering , Steel Head, No. F184, F. C. Giant, 1890-91.....	20	3x3 $\frac{1}{4}$	6.50	1.40
Determent	292I	Deering , Steel Head, No. F184, F. C. Giant, 1890-91.....	24	3x3 $\frac{1}{4}$	7.30	1.40
Detersive	292J	Deering , Steel Head, No. F184, F. C. Giant, 1890-91.....	28	3x3 $\frac{1}{4}$	8.10	1.40
Deedful	292K	Deering , Flax, Malleable Pin Head, E449 (1891).....	19	3 $\frac{1}{8}$ x2 $\frac{7}{16}$	4.40	.80
Deedless	292L	Deering , Flax, Malleable Pin Head, E449 (1891).....	23	3 $\frac{1}{8}$ x2 $\frac{7}{16}$	5.00	.80
Deedpoll	292M	Deering , Flax, Malleable Pin Head, E449 (1891).....	27	3 $\frac{1}{8}$ x2 $\frac{7}{16}$	5.60	.80
Dread	292MA	Deering , Flax, Malleable Pin Head, E449, Improved and Jr. Steel, 1890-93....	19	3 $\frac{1}{8}$ x2 $\frac{5}{16}$	4.40	.80
Dreadful	292MB	Deering , Flax, Malleable Pin Head, E449, Improved and Jr. Steel, 1890-93.....	23	3 $\frac{1}{8}$ x2 $\frac{5}{16}$	5.00	.80
Dreadly	292MC	Deering , Flax, Malleable Pin Head, E449, Improved and Jr. Steel, 1890-93....	27	3 $\frac{1}{8}$ x2 $\frac{5}{16}$	5.60	.80
Deem	292N	Deering , Flax, Malleable Head, E422, All Steel F. D., 1887-88.....	20	3 $\frac{1}{8}$ x2 $\frac{7}{16}$	4.00	.80
Deemster	292O	Deering , Flax, Malleable Head, E422, All Steel F. D., 1887-88.....	24	3 $\frac{1}{8}$ x2 $\frac{7}{16}$	4.50	.80
Deep	292P	Deering , Flax, Malleable Head, E422, All Steel F. D., 1887-88.....	28	3 $\frac{1}{8}$ x2 $\frac{7}{16}$	5.50	.80
Decoct	292R	Deering , Flax, Malleable Head, A46, Pony Binder, 1893- 98.....	19	3 $\frac{1}{8}$ x2 $\frac{5}{16}$	4.40	.80
Decocted	292T	Deering , Malleable Head, A46, Pony Binder, 1893-98....	23	3 $\frac{1}{8}$ x2 $\frac{5}{16}$	5.00	.80
Droll	294AB	Deering , Steel Head, No. F123, Ideal Mower, 1895-04....	18	3x3 $\frac{3}{16}$	5.90	1.20
Drone	294AC	Deering , Steel Head, No. F123, Ideal Mower, 1895-04....	19	3x3 $\frac{3}{16}$	6.10	1.20
Drongo	294AD	Deering , Steel Head, No. F123, Ideal Mower, 1893-04....	20	3x3 $\frac{3}{16}$	6.30	1.20
Drony	294AE	Deering , Steel Head, No. F123, Ideal Giant, 1895-04....	24	3x3 $\frac{3}{16}$	7.10	1.20
Drool	294AF	Deering , Steel Head, No. F123, Ideal Giant, 1896-04....	28	3x3 $\frac{3}{16}$	7.90	1.20

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Drooped	294AG	Deering, Steel Head, No. F123, One-Horse Mower, 1892- 98; Ideal O. H. Mower, 1896-1905.....	14	3x3 $\frac{3}{16}$	\$5.10	\$1.20
Drooping	294AH	Deering, Steel Head, No. F123, One-Horse, Ideal Mower, 1900-04.....	16	3x3 $\frac{3}{16}$	5.50	1.20
Droopingly	294AJ	Deering, Steel Head, No. F123, N. D. Mower, 1892-97; Ideal Mower, 1893-99; O. H. Mower, 1892-97.....	17	3x3 $\frac{3}{16}$	5.70	1.20
Droop	294AP	Deering, Steel Head, No. F121.	17	2 $\frac{1}{4}$ x3 $\frac{1}{8}$	5.50	1.20
Dross	294AQ	Deering, Steel Head, No. F121.	18	2 $\frac{1}{4}$ x3 $\frac{1}{8}$	5.65	1.20
Drove	294AR	Deering, Steel Head, No. F121.	20	2 $\frac{1}{4}$ x3 $\frac{1}{8}$	5.95	1.20
Drown	294AS	Deering, Steel Head, No. F121, Ideal Mower, 1893-96; New Deering Mower, 1892-97.....	24	2 $\frac{1}{4}$ x3 $\frac{1}{8}$	6.55	1.20
Drowning	294AT	Deering, Steel Head, No. F121, Ideal Mower, 1893-96; N. D. and F. C. Giant Mowers, 1892-97.....	27	2 $\frac{1}{4}$ x3 $\frac{1}{8}$	7.00	1.20
Drowned	294AU	Deering, Steel Head, No. F121, Ideal Mower, 1893-96; N. D. and F. C. Giant Mowers, 1892-97.....	32	2 $\frac{1}{4}$ x3 $\frac{1}{8}$	7.75	1.20
Decard	294BA	Deering, Malleable Head, D410, Ideal Mower (Wood Pit- man), 1896-97.....	20	3x3 $\frac{3}{16}$	5.90	.80
Decay	294BB	Deering, Malleable Head, D410, Ideal Mower (Wood Pit- man), 1896-97.....	24	3x3 $\frac{3}{16}$	6.70	.80
Decease	294BC	Deering, Malleable Head, D410, Ideal Mower (Wood Pit- man), 1896-97.....	28	3x3 $\frac{3}{16}$	7.50	.80
Deceit	294BD	Deering, Malleable Head, D410, Ideal Mower (Wood Pit- man), 1896-97.....	18	3x3 $\frac{3}{16}$	5.60	.80
Darkness	296AA	Deering, Wrought Steel Head, D537, R. H., Foreign.....	18	3x3 $\frac{3}{16}$	5.90	1.20
Darky	296AB	Deering, Wrought Steel Head, D537, R. H., Foreign.....	20	3x3 $\frac{3}{16}$	6.30	1.20
Darling	296AC	Deering, Wrought Steel Head, D537, R. H., Foreign.....	24	3x3 $\frac{3}{16}$	7.10	1.20
Darn	296AE	Deering, Head, H350, L. H. (Canada).....	19	3 $\frac{1}{8}$ x3	5.70	.80
Darnel	296AF	Deering, Head, H350, L. H. (Canada).....	23	3 $\frac{1}{8}$ x3	6.50	.80
Darnex	296AH	Deering, Malleable Head, A296, Foreign.....	19	3 $\frac{1}{8}$ x3	5.70	.80
Dart	296AJ	Deering, Malleable Head, A296, Foreign.....	23	3 $\frac{1}{8}$ x3	6.50	.80
Darter	296AL	Deering, "Ideal Reaper," 1894- 99, Malleable Head, C259, Blank and Tip.....	20	3x3 $\frac{1}{8}$	5.90	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Dandy	296AM	Deering (Ideal Reaper), Malleable Head, C457, L. H., 1900-01.....	20	3x3 $\frac{3}{16}$	\$5.90	\$0.80
Dapple	296AN	Deering (Ideal Reaper), Malleable Head, C457, L. H., 1900-01.....	24	3x3 $\frac{3}{16}$	6.70	.80
Dappled	296AO	Deering, Malleable Head, D626, Ideal O. H. Vertical Lift Mower, 1903 and since...	14	3x3 $\frac{3}{16}$	4.70	.80
Dashing	296AQ	Deering, Malleable Head, D626, Ideal O. H. Vertical Lift Mower, 1903 and since...	16	3x3 $\frac{3}{16}$	5.10	.80
Dashed	296AU	Deering, Malleable Head, D626, Ideal Vertical Lift Mower, 1902-06.....	18	3x3 $\frac{3}{16}$	5.50	.80
Dash	296AP	Deering, Malleable Head, D626, Ideal Vertical Lift, 1902-06.....	20	3x3 $\frac{3}{16}$	5.90	.80
Dorado	296AR	Deering, Malleable Head, D626, Ideal Vertical Lift, 1902-06.....	24	3x3 $\frac{3}{16}$	6.70	.80
Doric	296AS	Deering, Malleable Head, D626, Ideal Vertical Lift, 1902-06.....	28	3x3 $\frac{3}{16}$	7.50	.80
Darting	296AT	Deering, Malleable Head, H507, Foreign.....	23	3 $\frac{1}{8}$ x3	6.50	.80
Descend	296K	Deering, Malleable Head, C192, Light Reaper, 1886-97....	19	3x3 $\frac{1}{2}$	5.70	.80
Describe	296L	Deering, New Mower, Steel Head, F74, 1886-88.....	19	2 $\frac{1}{4}$ x3	5.90	1.40
Desecrate	296M	Deering, "New Mower," Steel Head, F74, 1886-88.....	22	2 $\frac{1}{4}$ x3	6.40	1.40
Deserter	296N	Deering, "New Mower," Steel Head, F74, 1886-88.....	24	2 $\frac{1}{4}$ x3	6.70	1.40
Designate	296O	Deering, "Front Cut," Giant, Steel Head, F74, 1886-88	27	2 $\frac{1}{4}$ x3	7.20	1.40
Desilver	296P	Deering, "Front Cut," Giant, Steel Head, F74, 1886-88	32	2 $\frac{1}{4}$ x3	7.90	1.40
Desirable	296Q	Deering, "Front Cut," Giant, Steel Head, F74, 1886-88	37	2 $\frac{1}{4}$ x3	8.70	1.40
Desirer	296R	Deering, Steel Head, F174....	15	3x3 $\frac{1}{2}$	5.50	1.40
Desister	296S	Deering, "New Deering Mower," Steel Head, F174, 1886-88.....	17	3x3 $\frac{1}{2}$	5.90	1.40
Desman	296T	Deering, "New Deering Mower," Steel Head, F174, 1886-88.....	19	3x3 $\frac{1}{2}$	6.30	1.40
Desolater	296U	Deering, "Front Cut," Giant, Steel Head, F174, 1886-88.....	20	3x3 $\frac{1}{2}$	6.50	1.40
Despairer	296V	Deering, "Front Cut," Giant, Steel Head, F174, 1886-88.....	24	3x3 $\frac{1}{2}$	7.30	1.40
Despeed	296W	Deering, "Front Cut," Giant, Steel Head, F174, 1886-88.....	28	3x3 $\frac{1}{2}$	8.10	1.40

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Damio	296X	Deering, "New Deering Mower," Steel Head, F74, 1889	22	2½x3½	\$6.40	\$1.40
Darg	296Y	Deering, "New Deering Mower," Steel Head, F74, 1889	24	2½x3½	6.70	1.40
Darrain	296J	Deering, Malleable Head, D463, Ideal One-Horse Mower, 1904 and since	14	3x3½	4.70	.80
Darner	296JA	Deering, Malleable Head, D463, Ideal One-Horse Mower, 1904 and since	16	3x3½	5.10	.80
Dare	296KA	Deering, Malleable Head, D463, Ideal and Ideal Giant Mowers, 1898 and since, New Ideal, New Ideal Vertical Lift, 1905 and since; New Ideal Giant, 1906 and since	18	3x3½	5.50	.80
Dareful	296KB	Deering, Malleable Head, D463, Ideal and Ideal Giant Mowers, 1898 and since; New Ideal, New Ideal Vertical Lift, 1905 and since; New Ideal Giant, 1906 and since	20	3x3½	5.90	.80
Darer	296KC	Deering, Malleable Head, D463, Ideal and Ideal Giant Mowers, 1898 and since; New Ideal, New Ideal Vertical Lift, 1905 and since; New Ideal Giant, 1906 and since	24	3x3½	6.70	.80
Daric	296KD	Deering, Malleable Head, D463, Ideal and Ideal Giant Mowers, 1898 and since; New Ideal, New Ideal Vertical Lift, 1905 and since; New Ideal Giant, 1906 and since	28	3x3½	7.70	.80
Daring	296KE	Deering (Flax), Malleable Pin Head, H260, Ideal Binder, 1898-03	19	3½x2 ⅝	4.40	.80
Dariole	296KF	Deering (Flax), Malleable Pin Head, H260, Ideal Binder, 1898-03	23	3½x2 ⅝	5.00	.80
Dark	296KG	Deering (Flax), Malleable Pin Head, H260, Ideal Binder, 1898-03	27	3½x2 ⅝	5.60	.80
Darken	296MA	Deering, Imp. and Jr., Steel, 1893-00, Malleable Pin Head, E701	19	2½x2 ⅝	4.40	.80
Darkful	296MB	Deering, Imp. and Jr., Steel, 1893-00, Malleable Pin Head, E701	23	3½x2 ⅝	5.00	.80
Darkish	296MC	Deering, Imp. and Jr., Steel, 1893-00, Malleable Pin Head, E701	27	3½x2 ⅝	5.60	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Dastard	296ME	Deering, Malleable Head, H877, Ideal H. & B., 1904 and since	19	3½x2 ⅝	\$4.40	\$0.80
Data	296MF	Deering, Malleable Head, H877, Ideal H. & B., 1904 and since	23	3½x2 ⅝	5.00	.80
Datary	296MG	Deering, Malleable Head, H877, Ideal H. & B., 1904 and since	27	3½x2 ⅝	5.60	.80
Dative	296MH	Deering, Malleable Head, H877, Ideal H. & B., 8 ft., 1904 and since	31	3½x2 ⅝	6.20	.80
Danger	305C	Dansville Mower, Malleable Ball Head, No. A, 1895.	19	3x3½	5.60	.80
Dangle	305E	Dansville Mower, Malleable Ball Head, No. A, 1895.	24	2½x3½	5.75	.80
Daint	307T	Dain Mower, 1890, Malleable Head, No. 90.	24	3x3½	6.70	.80
Dactyl	308	Dain Mower, Mall. Head, Z4, 1895 and since.	18	3x3 ⅜	5.50	.80
Dado	308A	Dain Mower, Mall. Head, Z4, 1895 and since.	20	3x3 ⅜	5.90	.80
Damage	308B	Dain Mower, Mall. Head, Z4, 1895 and since.	24	3x3 ⅜	6.70	.80
Damming	308C	Dain Mower, Mall. Head, Z4, 1895 and since.	28	3x3 ⅜	7.50	.80
Eyebrow	309A	Esterly Mower, Malleable Head, No. M85, 1884-92.	24	3x3 ⅜	6.80	.70
Extractor	309B	Esterly, Mower, Malleable Head, No. M85, 1884-92.	20	3x3 ⅜	6.00	.70
Extractive	309C	Esterly Mower, Malleable Head, No. M85, 1884-92.	18	3x3 ⅜	5.60	.70
Extrados	309D	Esterly Mower, Malleable Head, No. M85, 1884-92.	17	3x3 ⅜	5.40	.70
Estimate	310	Esterly Mower, Malleable Head, No. M85A, 1892.	17	3x3 ⅜	6.10	1.40
Estival	310A	Esterly Mower, Malleable Head, No. M85A, 1892.	18	3x3 ⅜	6.30	1.40
Estop	310B	Esterly Mower, Malleable Head, No. M85A, 1892.	20	3x3 ⅜	6.70	1.40
Estuate	310C	Esterly Mower, Malleable Head, No. M85A, 1892.	24	3x3 ⅜	7.50	1.40
Eyedrop	318D	Eureka, Malleable Pin Head, No. 66B, 1890.	20	3x2 ⅞	5.20	.80
Eyebolt	318E	Eureka, Malleable Pin Head, No. 66B, 1890.	24	3x2 ⅞	5.90	.80
Eyeglass	318F	Eureka, Malleable Pin Head, No. 66B, 1890.	28	3x2 ⅞	6.70	.80
Euripize	319	Eureka Mower, Malleable Pin Head, No. 66D.	20	3x3½	5.30	.80
Euripus	319A	Eureka Mower, Malleable Pin Head, No. 66D.	24	3x3½	6.10	.80
Eurite	319B	Eureka Mower, Malleable Pin Head, No. 66D.	28	3x3½	6.90	.80
Eulogy	320	Eureka, 1893 Pat., Malleable Pin Head, No. 66E.	20	3x3½	5.30	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Eunomy	320A	Eureka, 1893 Pat., Malleable Pin Head, No. 66E.	24	3x3 $\frac{1}{8}$	\$6.10	\$0.80
Eupathy	320B	Eureka, 1893 Pat., Malleable Pin Head, No. 66E.	28	3x3 $\frac{1}{8}$	6.90	.80
Euchre	320D	Eureka, 1896 Pat., Malleable Pin Head, No. 66H.	20	3x3 $\frac{1}{8}$	5.30	.80
Euchlore	320E	Eureka, 1896 Pat., Malleable Pin Head, No. 66H.	24	3x3 $\frac{1}{8}$	6.10	.80
Eucrasy	320F	Eureka, 1896 Pat., Malleable Pin Head, No. 66H.	28	3x3 $\frac{1}{8}$	6.90	.80
Enkerchief	340A	Empire, (Akron), Short Forged Head, No. 318, 1887 and since.	16	3x3 $\frac{3}{8}$	5.40	1.20
Enpatron	340B	Empire, (Akron), Short Forged Head, No. 318, 1887 and since.	17	3x3 $\frac{3}{8}$	5.60	1.20
Enthetic	340C	Empire, (Akron), Short Forged Head, No. 318, 1887 and since.	18	3x3 $\frac{3}{8}$	5.80	1.20
Entotic	340D	Empire, (Akron), Short Forged Head, No. 318, 1887 and since.	20	3x3 $\frac{3}{8}$	6.20	1.20
Epanody	340E	Empire, (Akron), Short Forged Head, No. 318, 1888 and since.	22	3x3 $\frac{3}{8}$	6.60	1.20
Erumpent	340J	Empire, (Doylestown), Long Forged Head, 1887 and since.	17	3x3 $\frac{3}{8}$	5.60	1.20
Evaluate	340K	Empire, (Doylestown), Long Forged Head, 1887 and since.	18	3x3 $\frac{3}{8}$	5.80	1.20
Exogany	340L	Empire, (Doylestown), Long Forged Head, 1887 and since.	20	3x3 $\frac{3}{8}$	6.20	1.20
Englut	344	Emerson, Malleable Head, Z94, or M195, Standard Mower, 1879-1900.	16	3x3 $\frac{1}{8}$	5.10	.80
Edinburg	344A	Emerson, Malleable Head, Z94, or M195, Standard Mower, 1879-1900.	17	3x3 $\frac{1}{8}$	5.30	.80
Eden	344B	Emerson, Malleable Head, Z94, or M195, Standard Mower, 1879-1900.	18	3x3 $\frac{1}{8}$	5.50	.80
Epustion	344D	Emerson, Malleable Head, Z94, or M195, Standard Mower, 1889-1900.	20	3x3 $\frac{1}{8}$	5.90	.80
Extraction	344E	Emerson, Malleable Head, Z94, or M195, Standard Mower, 1885-1900.	24	3x3 $\frac{1}{8}$	6.70	.80
Extravasate	344F	Emerson, Malleable Head, Z94, or M195, Standard Mower, 1886-1900.	28	3x3 $\frac{1}{8}$	7.50	.80
Extract	344FA	Emerson, Malleable Head, Z94, or M195, Standard Mower, 1894-1900.	32	3x3 $\frac{1}{8}$	8.30	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Extrude	344G	Emerson, Malleable Head, Z283 ¾ inch Hole, Standard Mower (California), 1898- 1900.....	32	3x3½	\$9.30	\$0.80
Extrusion	344HA	Emerson, Malleable Head, M196, ¾ inch Hole, Stand- ard Mower, 1899-1900....	20	2½x3½	5.40	.80
Exuberate	344HB	Emerson, Malleable Head, M196, ¾ inch Hole, Stand- ard Mower, 1899-1900....	22	2½x3½	5.80	.80
Exudate	344HC	Emerson, Malleable Head, M196, ¾ inch Hole, Stand- ard Mower, 1899-1900....	26	2½x3½	6.60	.80
Exudation	344HD	Emerson, Malleable Head, M196, ¾ inch Hole, Stand- ard Mower, 1899-1900....	31	2½x3½	7.80	.80
Exundate	344HE	Emerson, Malleable Head, M196, ¾ inch Hole, Stand- ard Mower, 1899-1900....	35	2½x3½	8.60	.80
Exustion	344J	Emerson, Malleable Ball Head, M187, R. H., Standard Mower 1899.....	20	2½x3½	5.40	.80
Exutory	344K	Emerson, Malleable Ball Head, M187, R. H., Standard Mower, 1899.....	22	2½x3½	5.80	.80
Eyas	344L	Emerson, Malleable Ball Head, M187, R. H., Standard Mower, 1899.....	26	2½x3½	6.60	.80
Eyelid	344N	Emerson, Malleable Ball Head, M186, R. H., Standard Mower, 1899.....	18	3x3½	5.50	.80
Eyer	344O	Emerson, Malleable Ball Head, M186, R. H., Standard Mower, 1899.....	20	3x3½	5.90	.80
Eyne	344P	Emerson, Malleable Ball Head, M186, R. H., Standard Mower, 1899.....	24	3x3½	6.70	.80
Eyeful	344V	Emerson, Malleable Ball Head, M188, Standard Mower, 1899.....	28	3x3½	7.50	.80
Eyebright	344W	Emerson, Malleable Ball Head, M188, Standard Mower, 1899.....	32	3x3½	8.30	.80
Embace	345A	Emerson, Malleable Head No. M203, Standard Mower, 1900 and since.....	18	3x3½	5.00	.80
Embale	345B	Emerson, Malleable Head No. M203, Standard Mower, 1900 and since.....	20	3x3½	5.40	.80
Embalm	345C	Emerson, Malleable Head, No. M203, Standard Mower, 1900 and since.....	24	3x3½	6.20	.80
Embay	345H	Emerson, Malleable Head, No. M204, Standard Mower, 1900 and since.....	28	3x3½	7.00	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives each	Price of Extra Heads each
Embarrass	345I	Emerson, Malleable Head, No. M204, Standard Mower, 1900 and since	32	3x3 $\frac{1}{8}$	\$7.80	\$0.80
Embed	345J	Emerson, Malleable Head, No. M224, Standard Mower, 1900-03	18	3x3 $\frac{1}{8}$	5.00	.80
Embeam	345K	Emerson, Malleable Head, No. M224, Standard Mower, 1900-03	20	3x3 $\frac{1}{8}$	5.40	.80
Embellish	345M	Emerson, Malleable Head, No. M224, Standard Mower, 1900-03	24	3x3 $\frac{1}{8}$	6.20	.80
Embarrassed	345N	Emerson, Malleable Head, No. M224, Standard Mower, 1900-03	28	3x3 $\frac{1}{8}$	7.00	.80
Embarrassing	345O	Emerson, Malleable Head, No. M224, Standard Mower, 1900-03	32	3x3 $\frac{1}{8}$	7.80	.80
Elegant	389C	Ellwood, Mower, No. 6, to 1896, Malleable Ball Head, No. A67, Malleable Blank	18	3x3 $\frac{5}{16}$	6.00	.80
Elegist	389D	Ellwood, Mower, No. 6, to 1896, Malleable Ball Head, No. A67, Malleable Blank	20	3x3 $\frac{5}{16}$	6.40	.80
Element	389E	Ellwood, Mower, No. 6, to 1896, Malleable Ball Head, No. A67, Malleable Blank	24	3x3 $\frac{5}{16}$	7.20	.80
Elephant	389F	Ellwood, Mower, No. 6, to 1896, Malleable Ball Head, No. A67, Malleable Blank	28	3x3 $\frac{5}{16}$	8.00	.80
Elevate	389G	Ellwood, Mower, No. 6, 1896 and since, Head, No. A98, Steel Blank	18	3x3 $\frac{5}{16}$	6.00	.80
Elevation	389H	Ellwood, Mower, No. 6, 1896 and since, Head, No. A98, Steel Blank	20	3x3 $\frac{5}{16}$	6.40	.80
Elevator	389I	Ellwood, Mower, No. 6, 1896 and since, Head, No. A98, Steel Blank	24	3x3 $\frac{5}{16}$	7.20	.80
Elf	389J	Ellwood, Mower, No. 6, 1896 and since, Head, No. A98, Steel Blank	28	3x3 $\frac{5}{16}$	8.00	.80
Gainsay	394	Granite State, Malleable Head, No. 5, 1875 and since	16	3x3 $\frac{1}{16}$	5.50	.80
Gairish	394A	Granite State, Malleable Head, No. 5, 1875 and since	18	3x3 $\frac{1}{16}$	5.80	.80
Garland	394B	Granite State, Malleable Head, No. 5, 1875 and since	14	3x3 $\frac{1}{16}$	5.10	.80
Galipot.	396	Granite, Malleable Head	17	3x3 $\frac{1}{8}$	5.50	.80
Gardenware	396A	Granite, Malleable Head	18	3x3 $\frac{1}{8}$	5.70	.80
Impeach	448	Imperial, Mower, Malleable Head	18	3x3 $\frac{1}{8}$	5.50	.80
Impearl	448A	Imperial, Mower, Malleable Head	20	3x3 $\frac{1}{8}$	5.90	.80
Impede	448B	Imperial, Mower, Malleable Head	24	3x3 $\frac{1}{8}$	6.70	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Jabber	452	Johnston , No. 2, Continental Reaper, 1878, with Tip, Globe Malleable Head. . .	16	3x3 $\frac{1}{8}$	\$5.30	\$0.80
Jade	453	Johnston , International Reaper, 1876 and since, with Tip, Globe Malleable Head. . .	19	3x3 $\frac{1}{8}$	5.80	.80
Jacinth	454	Johnston , Mall. Head, No. 124, No. 5 Mower, 1879-97; No. 6 Cont. Mower, 1880- 95, and Mayflower Gear Mower, 1887-95.	17	3x3 $\frac{1}{8}$	5.50	.80
Jock	455	Johnston , Mall. Head, No. 124, No. 5 Mower, 1879-97; No. 6 Cont. Mower, 1880- 95; No. 8 Globe Mower, 1890-95, and Mayflower Gear Mower, 1887-95	18	3x3 $\frac{1}{8}$	5.70	.80
Joculator	455A	Johnston , Mall. Head, No. 124, No. 5 Mower, 1879-97; No. 6 Cont. Mower, 1880- 95; No. 8 Globe Mower, 1890-95, and Mayflower Gear Mower, 1887-95. . . .	14	3x3 $\frac{1}{8}$	4.90	.80
Jonquil	455B	Johnston , Mall. Head, No. 124, No. 5 Mower, 1879-97; No. 6 Cont. Mower, 1880- 95, No. 8 Globe Mower, 1890-95, and Mayflower Gear Mower, 1887-95	20	3x3 $\frac{1}{8}$	6.10	.80
Jogger	455C	Johnston , Mall. Head, No. 124, No. 5 Mower, 1879-97; No. 6 Cont. Mower, 1880- 95; No. 8 Globe Mower, 1890-95, and Mayflower Gear Mower, 1887-95	24	3x3 $\frac{1}{8}$	6.90	.80
Jackal	456	Johnston , Combined, Mall. Globe Head, No. 124, No Tip.	20	3x3 $\frac{1}{8}$	6.10	.80
Jacket	457	Johnston , Harvester, with Steel Heel Blank, Globe Mal- leable Head, No. 124, and Tip.	20	3x3 $\frac{1}{8}$	6.40	.80
Jog	468	Johnston , Malleable Head, No. 919, Used on No. 9 Chain Drive, 1896 and since; No. 10 Gear Drive, 1901 and since; No. 6 Continental, No. 8 Globe, 1896 and since; Mayflower Gear, 1896 and since; Mayflower Chain, 1898 and since. . .	14	3x3 $\frac{1}{8}$	5.00	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Joggle	468A	Johnston , Malleable Head, No. 919, Used on No. 9 Chain Drive, 1896 and since; No. 10 Gear Drive, 1901 and since; No. 6 Continental, No. 8 Globe, 1896 and since; Mayflower Gear 1896 and since; Mayflower Chain, 1898 and since.	17	3x3 $\frac{3}{8}$	\$5.60	\$0.80
Jobbery	468B	Johnston , Malleable Head, No. 919, Used on No. 9 Chain Drive, 1896 and since; No. 10 Gear Drive, 1901 and since; No. 6 Continental, No. 8 Globe, 1896 and since; Mayflower Gear, 1896 and since; Mayflower Chain 1898 and since.	18	3x3 $\frac{3}{8}$	5.80	.80
Jobation	468C	Johnston , Malleable Head, No. 919, Used on No. 9 Chain Drive, 1896 and since; No. 10 Gear Drive, 1901 and since; No. 6 Continental, No. 8 Globe, 1896 and since; Mayflower Gear, 1896 and since; Mayflower Chain, 1898 and since.	20	3x3 $\frac{3}{8}$	6.20	.80
Jocantry	468D	Johnston , Malleable Head, No. 919, Used on No. 9 Chain Drive, 1896 and since; No. 10 Gear Drive, 1901 and since; No. 6 Continental, No. 8 Globe, 1896 and since; Mayflower Gear, 1896 and since; Mayflower Chain, 1898 and since.	24	3x3 $\frac{3}{8}$	7.00	.80
Jointing	469D	Johnston , Bonnie Binder, 1899, Malleable Pin Head, No. L296	22	3x2 $\frac{1}{2}$	6.10	1.00
Jointress	469E	Johnston , Bonnie Binder, 1899, Malleable Pin Head, No. L296	26	3x2 $\frac{1}{2}$	6.90	1.00
Jointstock	469H	Johnston , Bonnie Binder, 1899, Malleable Pin Head, No. L296	22	3x2 $\frac{1}{8}$	6.30	1.00
Jointstool	469I	Johnston , Bonnie Binder, 1899, Malleable Pin Head, No. L296	26	3x2 $\frac{1}{8}$	7.15	1.00
Joist	470	Johnston , Malleable Head, K7, L. H., Continental Binder, Flax, 1898-99.	21	3x2 $\frac{1}{8}$ L.P	6.10	1.00
Jollity	470A	Johnston , Malleable Head, K7, L. H., Continental Binder, Flax, 1898-99.	25	3x2 $\frac{1}{8}$ L.P	6.90	1.00
Jongler	470B	Johnston , Malleable Head, K7, L. H., Continental Binder, Flax, 1898-99.	27	3x2 $\frac{1}{8}$ L.P	7.30	1.00

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives each	Price of Extra heads each
Jounce	470C	Johnston , Malleable Head, K7, L. H., Continental Binder, Flax, 1898-99	19	3x2 $\frac{1}{16}$	L.P. \$5.70	\$1.00
Jorden	470D	Johnston , Malleable Head, No. 269, Flax. Reg. Continen- tal, 1878-93; Imp. Continen- tal, 1891	19	3x3 $\frac{1}{8}$	5.90	.80
Joram	470G	Johnston , "Bonnie," R. H., 1899, Malleable Pin Head, No. L296	19	3x2 $\frac{1}{16}$	5.90	1.00
Joso	470K	Johnston , "Bonnie," R. H., 1899, Malleable Pin Head, No. L296	19	3x2 $\frac{1}{2}$	5.70	1.00
Jostle	470L	Johnston , "Bonnie," R. H., 1899, Malleable Pin Head, No. L296	20	3x2 $\frac{1}{2}$	5.95	1.00
Jot	470M	Johnston , "Bonnie," R. H., 1899, Malleable Pin Head, No. L296	28	3x2 $\frac{1}{2}$	7.20	1.00
Jobber	471A	Johnston , R. H., Malleable Head, No. 915, Foreign ...	14	3x3 $\frac{1}{8}$	4.90	.80
Jocosely	471B	Johnston , R. H., Malleable Head, No. 915, Foreign ...	17	3x3 $\frac{1}{8}$	5.50	.80
Jocosity	471C	Johnston , R. H., Malleable Head, No. 915, Foreign ...	18	3x3 $\frac{1}{8}$	5.70	.80
Johanite	471D	Johnston , R. H., Malleable Head, No. 915, Foreign ...	20	3x3 $\frac{1}{8}$	6.10	.80
Joker	471E	Johnston , Malleable Head, No. K306, L. H. Cont. Binder, 1900-02	21	3x2 $\frac{1}{16}$	H.P. 6.10	1.00
Joked	471G	Johnston , Malleable Head, No. K306, L. H. Cont. Binder, 1900-02	18	3x2 $\frac{1}{16}$	H.P. 5.50	1.00
Joking	471H	Johnston , Malleable Head, No. K306, L. H. Cont. Binder, 1903 and since	19	3x2 $\frac{1}{16}$	H.P. 5.70	1.00
Jole	471I	Johnston , Malleable Head, No. K306, L. H. Cont. Binder, 1906 and since	20	3x2 $\frac{1}{16}$	H.P. 5.90	1.00
Journey	471K	Johnston , Malleable Head, No. K306, L. H. Cont. Binder, 1903-05	22	3x2 $\frac{1}{16}$	H.P. 6.30	1.00
Journeying	471L	Johnston , Malleable Head, No. K306, L. H. Cont. Binder, 1906 and since	24	3x2 $\frac{1}{16}$	H.P. 6.70	1.00
Jove	471M	Johnston , Malleable Head, No. K306, L. H. Cont. Binder, 1900-02	25	3x2 $\frac{1}{16}$	H.P. 6.90	1.00
Jovialist	471N	Johnston , Malleable Head, No. K306, L. H. Cont. Binder, 1903-05	26	3x2 $\frac{1}{16}$	H.P. 7.10	1.00
Joup	471O	Johnston , Malleable Head, No. K306, L. H. Cont. Binder, 1900-02	27	3x2 $\frac{1}{16}$	H.P. 7.30	1.00
Judged	471P	Johnston , Malleable Head, No. K306, L. H. Cont. Binder, 1903 and since	28	3x2 $\frac{1}{16}$	H.P. 7.50	1.00

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Judging	471Q	Johnston , Malleable Head, No. K306, L. H. Cont. Binder, 1906 and since.	32	3x2 $\frac{15}{16}$	H.P. \$8.30	\$1.00
Judgment	472AA	Johnston (Flax), Mall. Head, No. L756, Bonnie Binder, 1900 and since; R. H. Cont. Binder, 1902 and since. . .	19	3x2 $\frac{15}{16}$	H.P. 5.70	1.00
Jub	472A	Johnston (Flax), Bonnie Binder, 1900 and since; R. H. Continental, 1902 and since, Malleable Head, No. L756.	22	3x2 $\frac{15}{16}$	H.P. 6.30	1.00
Juba	472B	Johnston (Flax), Bonnie Binder 1900 and since; R. H. Continental, 1902 and since, Head, No. L756.	26	3x2 $\frac{15}{16}$	H.P. 7.15	1.00
Jucundity	472C	Johnston (Flax), Bonnie Binder, 1900 and since; R. H. Continental, 1902 and since, Malleable Head, No. L756.	28	3x2 $\frac{15}{16}$	H.P. 7.50	1.00
Jury	472E	Johnston , Malleable Head, No. L16, Bonnie Binder, 1895.	21	3x2 $\frac{1}{2}$	5.90	1.00
Juryman	472F	Johnston , Malleable Head, No. L16, Bonnie Binder, 1895.	25	3x2 $\frac{1}{2}$	6.70	1.00
Juror	472G	Johnston , Malleable Head, No. L16, Bonnie Binder, 1895.	27	3x2 $\frac{1}{2}$	7.10	1.00
Keel	480A	Keystone , Malleable Head, No. A184, Keystone Gear Drive Mower, 1904 and since.	20	3x3 $\frac{3}{16}$	5.90	.80
Keeler	480AA	Keystone , Malleable Head, No. A184, Keystone Gear Drive Mower, 1904 and since.	18	3x3 $\frac{3}{16}$	5.50	.80
Keen	480B	Keystone , Malleable Head, No. A184, Keystone Gear Drive Mower, 1904 and since.	24	3x3 $\frac{3}{16}$	6.70	.80
Keeping	480D	Keystone , Malleable Head, No. E65, Binder, 1905 and since.	24	3x2 $\frac{7}{16}$	6.40	.70
Keg	480E	Keystone , Malleable Head, No. E65, Binder, 1905 and since.	28	3x2 $\frac{7}{16}$	7.20	.70
Kern	480F	Keystone , Malleable Head, No. E65, Binder, 1905 and since.	32	3x2 $\frac{7}{16}$	8.00	.70
Knout	506D	Knowlton , Malleable Head, No. K126.	18	3x3 $\frac{5}{16}$	6.00	.80
Knower	506E	Knowlton , Malleable Head, No. K126.	17	3x3 $\frac{5}{16}$	5.80	.80
Knubble	506F	Knowlton , Malleable Head, No. K126.	20	3x3 $\frac{5}{16}$	6.40	.80
Knuckle	506G	Knowlton , Malleable Head, No. K126.	24	3x3 $\frac{5}{16}$	7.20	.80
Knuff	506H	Knowlton , Malleable Head, No. K126.	28	3x3 $\frac{5}{16}$	8.00	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Musca	541D	Manny, J. P., Mower, Malleable Head, with Malleable Lock Nut, 1887. . . .	17	3x3 $\frac{3}{8}$	\$6.20	\$1.20
Muscadel	541E	Manny, J. P., Mower, Malleable Head, with Malleable Lock Nut, 1887. . . .	19	3x3 $\frac{3}{8}$	6.60	1.20
Myricine	541F	Manny, J. P., Mower, Malleable Head, with Malleable Lock Nut, 1887. . . .	20	3x3 $\frac{3}{8}$	6.80	1.20
Muscari	541G	Manny, J. P., Mower, Malleable Head, with Malleable Lock Nut, 1887. . . .	23	3x3 $\frac{3}{8}$	7.40	1.20
Myrmidon	541J	Manny, J. P., No. 4 Mower, Malleable Head, No. 7 with Malleable Lock Nut, 1889.	17	3x3 $\frac{5}{16}$	6.20	1.20
Mystical	541K	Manny, J. P., No. 4 Mower, Malleable Head, No. 7, with Malleable Lock Nut, 1889.	20	3x3 $\frac{5}{16}$	6.80	1.20
Mystify	541L	Manny, J. P., No. 4 Mower, Malleable Head, No. 7, with Malleable Lock Nut, 1889.	23	3x3 $\frac{5}{16}$	7.40	1.20
Mandate	551	Meadow King, Wrought Head. . . .	14	3 $\frac{1}{2}$ x3	4.90	1.20
Mammoth	551A	Meadow King, Wrought Head. . . .	16	3 $\frac{1}{2}$ x3	5.30	1.20
Madrid	552	Meadow King, Wrought Head. . . .	17	3 $\frac{1}{2}$ x3	5.40	1.20
Manage	553	Meadow King, Wrought Head. . . .	18	3 $\frac{1}{2}$ x3	5.60	1.20
Meager	554A	Meadow King (Gregg), 1894, Malleable Head, No. G. . . .	20	3 $\frac{1}{2}$ x3	5.50	.70
Maculate	556AA	McCormick, Flax, Malleable Head, K43, Sections Bottom of Rod, 1895-98, R. H.	20	3x2 $\frac{7}{16}$	5.50	.70
Maculose	556BB	McCormick, Flax, Malleable Head, K43, Sections Bottom of Rod, 1895-98, R. H.	24	3x2 $\frac{7}{16}$	6.20	.70
Madam	556CC	McCormick, Flax, Malleable Head, K43, Sections Bottom of Rod, 1895-98, R. H.	28	3x2 $\frac{7}{16}$	6.90	.70
Mutule	556B	McCormick, Pipe Frame, Harvester, Flax, Malleable Head, H461, 1888-89. . . .	21	3x2 $\frac{7}{16}$	5.30	.70
Myceloid	556C	McCormick, Pipe Frame, Harvester, Flax, Malleable Head, H461, 1888-89. . . .	25	3x2 $\frac{7}{16}$	5.90	.70
Mycetes	556D	McCormick, Pipe Frame, Harvester, Flax, Malleable Head, H461, 1888-89. . . .	29	3x2 $\frac{7}{16}$	6.50	.70
Macadamize	556E	McCormick, Pipe Frame, Harvester, Flax, Malleable Head, H732, 1890-1901. . .	20	3x2 $\frac{7}{16}$	5.10	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives each	Price of Extra Heads each
Macarize	556F	McCormick, Pipe Frame, Harvester Flax, Malleable Head, H732, 1890-1901..	24	3x2 $\frac{7}{16}$	\$5.80	\$0.80
Macaronic	556G	McCormick, Pipe Frame, Harvester Flax, Malleable Head, H732, 1890-1901..	28	3x2 $\frac{7}{16}$	6.50	.80
Macaroon	556P	McCormick, Daisy Reaper, Malleable Head, L303, 1890-1901.....	20	3x3	4.60	.70
Mine	558A	McCormick, Harvester Flax, Malleable Head, H918, L. H. Open Elevator. 1893-01.....	20	3x3	5.50	.70
Mineral	558AB	McCormick, Harvester Flax, Malleable Head, H918, L. H. Open Elevator, 1893-01.....	24	3x3	6.20	.70
Mint	558AC	McCormick, Harvester Flax, Malleable Head, H918, L. H. Open Elevator, 1893-01.....	28	3x3	6.90	.70
Mob	558B	McCormick, R. H. Open Elevator, Harvester Flax, Malleable Head, K43, 1894-1901, Section Top of Rod	20	3x3	5.50	.70
Mock	558BA	McCormick, R. H. Open Elevator, Harvester Flax, Malleable Head, K43, 1894-1901, Section Top of Rod, Foreign.....	24	3x3	6.20	.70
Moire	558BB	McCormick, R. H., Open Elev., Harvester Flax, Malleable Head, K43, 1894-1901; Section Top of Rod, Foreign.....	28	3x3	6.90	.70
Monogram	565A	McCormick, Mower, Malleable Head, M534, Little 4, 1894-01; Little Vertical, 1902 and since.....	14	3x3 $\frac{3}{16}$	4.90	.80
Moor	565B	McCormick, Mower, Malleable Head, M534, Little 4, 1894-01; Little Vertical, 1902 and since.....	17	3x3 $\frac{3}{16}$	5.10	.80
Morat	565C	McCormick, Mower, Malleable Head, M534, Little 4, 1894-01; Little Vertical, 1902 and since.....	18	3x3 $\frac{3}{16}$	5.30	.80
Morgue	565D	McCormick, Mower, Malleable Head, M534, Little 4, 1894-01; Little Vertical, 1902 and since.....	20	3x3 $\frac{3}{16}$	5.90	.80
Moria	565AA	McCormick, Malleable Head, M534, Foreign. Use Black Top Sections.....	14	3x3 $\frac{3}{16}$	4.80	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Moribund	565AB	McCormick, Malleable Head, M534, Foreign. Use Black Top Sections	17	3x3 $\frac{3}{16}$	\$5.00	\$0.80
Morice	565AC	McCormick, Malleable Head, M534, Foreign. Use Black Top Sections	18	3x3 $\frac{3}{16}$	5.20	.80
Moril	565AD	McCormick, Malleable Head, M534, Foreign. Use Black Top Sections	20	3x3 $\frac{3}{16}$	5.60	.80
Mudhole	569H	McCormick, New Iron Mower, No. 2, Malleable Head, M36, 1884-85	17	3x3 $\frac{1}{16}$	5.40	1.00
Mudstone	569I	McCormick, New Iron Mower, No. 2, Malleable Head, M36, 1884-85	18	3x3 $\frac{1}{16}$	5.60	1.00
Mudwort	569J	McCormick, New Iron Mower, No. 2, Malleable Head, M36, 1884-85	20	3x3 $\frac{1}{16}$	6.00	1.00
Mulberry	569P	McCormick, Malleable Head, M139, No. 2 Mower, 1885- 87; No. 3 Mower, 1886- 87; No. 4 Mower, 1887 . . .	18	3x3 $\frac{1}{16}$	5.40	.80
Mulch	569Q	McCormick, Malleable Head, M139, No. 2 Mower, 1885- 87; No. 3 Mower, 1886- 87; No. 4 Mower, 1887 . . .	17	3x3 $\frac{1}{16}$	5.20	.80
Mode	569QA	McCormick, Malleable Head, M139, No. 2 Mower, 1885- 87; No. 3 Mower, 1886- 87; No. 4 Mower, 1887 . . .	20	3x3 $\frac{1}{16}$	5.80	.80
Muleteer	569R	McCormick, Malleable Head, M143, Iron Mower, 1885- 87	17	3x3 $\frac{1}{16}$	5.20	.80
Muley	569S	McCormick, Malleable Head, M143, Iron Mower, 1885- 87	16	3x3 $\frac{1}{16}$	5.00	.80
Multiped	569U	McCormick, Malleable Head, L166, No. 2 Daisy Reaper, 1886-90; Folding Daisy Reaper, 1890-1905; New Folding Daisy, 1905 and since	20	3x3	5.50	.70
Multiply	569X	McCormick, Malleable Head, M237	17	3x3 $\frac{1}{16}$	5.20	.80
Multisect	569Y	McCormick, Malleable Head, M237, Nos. 3 and 4 Mow- ers, 1887	18	3x3 $\frac{1}{16}$	5.40	.80
Multitude	569Z	McCormick, Malleable Head, M237, Nos. 3 and 4 Mow- ers, 1887	20	3x3 $\frac{1}{16}$	5.80	.80
Multum	569AA	McCormick, Malleable Head, M237	24	3x3 $\frac{1}{16}$	6.60	.80
Maccaboy	569DD	McCormick, Malleable Head, M139, No. 4 Mower, 1888- 97; New 4 and Vertical Lift, 1896 and since	17	3x3 $\frac{3}{16}$	5.30	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra blades each
Muscatel	569EE	McCormick, Malleable Head, M139, No. 4 Mower, 1888-97; Big 4, 1889-97; New 4 and Vertical Lift, 1896 and since	18	3x3 $\frac{3}{16}$	\$5.50	\$0.80
Muscoid	569FF	McCormick, Malleable Head, M139, No. 4 Mower, 1888-97; Big 4, 1889-97; New 4 and Vertical Lift, 1896 and since; New Big 4, 1898 and since	20	3x3 $\frac{3}{16}$	5.90	.80
Macerate	569GG	McCormick, Malleable Head, M139, Big 4 Mower, 1889-97; New Big 4, 1898 and since	24	3x3 $\frac{3}{16}$	6.70	.80
Machinate	569HH	McCormick, Malleable Head, M139, Big 4 Mower, 1889-97; New Big 4, 1898 and since	28	3x3 $\frac{3}{16}$	7.50	.80
Marine	571A	McCormick, Flax, Malleable Head, B410, New Open Elevator, R. H., 1901 and since	20	3x2 $\frac{7}{16}$	5.60	.70
Mark	571B	McCormick, Flax, Malleable Head, B410, New Open Elevator, R. H., 1901 and since	24	3x2 $\frac{7}{16}$	6.40	.70
Market	571C	McCormick, Flax, Malleable Head, B410, New Open Elevator, R. H., 1901 and since	28	3x2 $\frac{7}{16}$	7.20	.70
Marrow	571D	McCormick, Flax, Malleable Head, B410, New Open Elevator, R. H., 1902 and since	32	3x2 $\frac{7}{16}$	8.00	.70
Mart	575A	McCormick, Flax, Malleable Head, B23, New Open Elevator, L. H., 1901 and since	20	3x2 $\frac{7}{16}$	5.60	.70
Marvel	575B	McCormick, Flax, Malleable Head, B23, New Open Elevator, L. H., 1901 and since	24	3x2 $\frac{7}{16}$	6.40	.70
Mash	575C	McCormick, Flax, Malleable Head, B23, New Open Elevator, L. H., 1901 and since	28	3x2 $\frac{7}{16}$	7.20	.70
Mast	575D	McCormick, Flax, Malleable Head, B23, New Open Elevator, L. H., 1903 and since	32	3x2 $\frac{7}{16}$	8.00	.70
Mumpish	590	Minneapolis Mower, Malleable Head, C44	17	3x3 $\frac{1}{4}$	5.50	.80
Muncher	590A	Minneapolis Mower, Malleable Head, C44	20	3x3 $\frac{1}{4}$	6.10	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Muscovite	590B	Minneapolis Mower, Malleable Head, C44½, 1888	17	3x3½	\$5.50	\$0.80
Muscular	590C	Minneapolis Mower, Malleable Head, C44½, 1888	20	3x3½	6.10	.80
Machinist	590E	Minneapolis Mower, Malleable Head, No. C211, 1890	17	3x3½	5.50	.80
Mackerel	590F	Minneapolis Mower, Malleable Head, No. C211, 1890	20	3x3½	6.10	.80
Macropod	590G	Minneapolis Mower, Malleable Head, No. C211, 1890	24	3x3½	6.90	.80
Mycology	595M	Milwaukee, Chain Power Mower, Malleable Head, P15, 1888-94	17	3x3½	5.70	1.20
Mylodon	595N	Milwaukee, Chain Power Mower, Malleable Head, P15, 1888-94	20	3x3½	6.30	1.20
Mynchen	595O	Milwaukee, Chain Power Mower, Malleable Head, P15, 1888-94	24	3x3½	7.10	1.20
Macrotone	595Q	Milwaukee, Steel Junior Harvester, No. 10 L. H., Malleable Head, No. S34, 1890 and since	20	3½x2½	5.00	.70
Macula	595R	Milwaukee, Steel Junior Harvester, No. 10 L. H., Malleable Head, No. S34, 1889 and since	23	3½x2½	5.50	.70
Macle	595S	Milwaukee, Steel Junior Harvester, No. 10 L. H., Malleable Head, No. S34, 1892 and since	27	3½x2½	5.90	.70
Mildew	596	Milwaukee, Malleable Head, No. PG6, No. 6 Chain Power Mower, 1892 and since	24	3x3½	6.90	.80
Milage	596A	Milwaukee, Malleable Head, No. PG6, No. 6 Chain Power Mower, 1892 and since	28	3x3½	7.70	.80
Milfoil	596B	Milwaukee, Malleable Head, No. PG6, No. 5 Chain Power Mower, 1894 and since; No. 6 Chain Power Mower, 1892 and since	20	3x3½	6.10	.80
Militant	596C	Milwaukee, Malleable Head, No. PG6, No. 5 Chain Power Mower, 1894 and since; No. 6 Chain Power Mower, 1892 and since	18	3x3½	5.70	.80
Militar	596D	Milwaukee, No. 10 Harvester, R. H., Flax, Malleable Pin Head, No. SE34, 1898	20	3½x2½	5.00	.70
Military	596E	Milwaukee, No. 10 Harvester, R. H., Flax, Malleable Pin Head, No. SE34, 1898	23	3½x2½	5.50	.70

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Militate	596F	Milwaukee, No. 10 Harvester, R. H., Flax, Malleable Pin Head, No. SE34, 1898 . . .	27	3½x2½	\$6.20	\$0.70
		Minnie Mower. See American Grass Twine Co.				
Oat	606	Osborne, Columbia Binder, 1895-1902, Malleable Head B587, L. H., Top of Rod . . .	25	3x3L.P.	6.10	1.00
Oath	606A	Osborne, Columbia Binder, 1895-1902, Malleable Head, B587, L. H., Top of Rod	29	3x3L.P.	6.70	1.00
Oatmeal	607	Osborne, R. H., Malleable Head F320; Columbia Reaper, 1896 and since; No. 8, Light Reaper, 1897-05, Foreign	19	3x3L.P.	4.90	.60
Obduce	607A	Osborne, Flax, R. H., Pin Head, B489; New Osborne 1892-94; Osborne, Jr., 1887-91	21	3x3L.P.	5.50	1.00
Obduct	607B	Osborne, Flax, R. H., Pin Head, B489; New Osborne 1892-94; Osborne, Jr., 1887-91	25	3x3L.P.	6.10	1.00
Obduction	607C	Osborne, Flax, R. H., Pin Head, B489; New Osborne 1892-94; Osborne, Jr., 1887-91	29	3x3L.P.	6.70	.60
Obdurate	608	Osborne, Malleable Head, K211, No. 4 Mower, 1893- 98	16	3x3H.P.	4.30	.60
Obdure	608A	Osborne, Malleable Head, K211, No. 4 Mower, 1893- 98	18	3x3H.P.	4.70	.60
Obeah	608B	Osborne, Malleable Head, K211, No. 4 and Big 4 Mowers, 1894-98	20	3x3H.P.	5.10	.60
Obedible	608C	Osborne, Malleable Head, K211, Big 4 Mower, 1894- 98	24	3x3H.P.	5.90	.60
Opal	609	Osborne, Mower, Malleable Head, K212, 1885-92 . . .	16	3x3L.P.	4.30	.60
Open	609A	Osborne, No. 4 Mower, Malle- able Head, K212, 1885-92	18	3x3L.P.	4.70	.60
Opera	609B	Osborne, No. 4 Mower, Malle- able Head, K212, 1885-92	20	3x3L.P.	5.10	.60
Opium	609C	Osborne, Big 4 Mower, Malle- able Head, K212	24	3x3L.P.	5.90	.60
Operator	609D	Osborne, Big 4 Mower, Malle- able Head K212, 1885-92.	28	3x3L.P.	6.70	.60
Orion	610	Osborne, Mower, Malleable Head, K212, for Big 4 and 6 Machine, 1893	16	3x3H.P.	4.30	.60

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Ork	610A	Osborne, Mower, Malleable Head, K212, for Big 4 and 6 Machine, 1893.....	18	3x3H.P.	\$4.70	\$0.60
Orlo	610B	Osborne, Mower, Malleable Head, K212, for Big 4 and 6 Machine, 1893.....	20	3x3H.P.	5.10	.60
Orn	610C	Osborne, Mower, Malleable Head, K212, for Big 4 and 6 Machine, 1893.....	24	3x3H.P.	5.90	.60
Orris	610E	Osborne, No. 4 Mower, Malleable Head, No. K229, 1893-98.....	18	3x3H.P.	4.70	.60
Orthite	610F	Osborne, No. 4 Mower, Malleable Head, No. K229, 1893-98.....	20	3x3H.P.	5.10	.60
Osier	610G	Osborne, Big 4 Mower, Malleable Head, No. K229, 1893-98.....	24	3x3H.P.	5.90	.60
Osculate	611	Osborne, Malleable Head, No. 616, No. 4 Mower, 1888-92.....	18	3x3L.P.	4.50	.60
Osmanli	611A	Osborne, Malleable Head, No. 616, No. 4 Mower, 1888-92.....	20	3x3L.P.	4.90	.60
Osmic	611B	Osborne, Malleable Head, No. 616, Big 4 Mower, 1888-92.....	24	3x3L.P.	5.70	.60
Osmelite	611C	Osborne, Malleable Head, No. 616, Big 4 Mower, 1888-92.....	28	3x3L.P.	6.50	.60
Oak	612	Osborne, No. 7 or Ceres Mower, Steel Head, Malleable Blank, H989, 1878 and since.....	16	3 $\frac{3}{16}$ x 3 $\frac{1}{2}$	4.90	1.20
Occasion	612A	Osborne, No. 7 or Ceres Mower, Steel Head, Malleable Blank, H989, 1878-79....	17	3 $\frac{3}{16}$ x 3 $\frac{1}{2}$	5.10	1.20
Occident	612C	Osborne, No. 7, Malleable Head, H989X, 1880 and since....	16	3 $\frac{3}{16}$ x 3 $\frac{1}{2}$	4.50	.80
Obvolute	612D	Osborne, No. 7, Malleable Head, H989X, 1880 and since.....	18	3 $\frac{3}{16}$ x 3 $\frac{1}{2}$	4.90	.80
Occursion	612G	Osborne, Nos. 3, 4 and Big 4 Mowers, Malleable Head, K50, 1885-91.....	18	3x3L.P.	4.50	.60
Ostend	612GA	Osborne Nos. 3, 4 and Big 4 Mowers, Malleable Head, K50, 1885-91.....	20	3x3L.P.	4.90	.60
Osselet	612GB	Osborne, Nos. 3, 4 and Big 4 Mowers, Malleable Head, K50, 1885-91.....	24	3x3L.P.	5.70	.60
Ossific	612GC	Osborne, Nos. 3, 4 and Big 4 Mowers, Malleable Head, K50, 1885-91.....	28	3x3L.P.	6.50	.60

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Ordeal	612AA	Osborne, Columbia Mower, Malleable Head, K284, B and C Mowers, 1897-01...	16	3x3H.P.	\$4.30	\$0.60
Ordain	612BB	Osborne, Columbia Mower, Malleable Head, K284, C Mower, 1896-01; D Mower 1898-01.....	18	3x3H.P.	4.70	.60
Orchis	612CC	Osborne, Columbia Mower, Malleable Head, K284, C Mower, 1896-01; D Mower, 1898-01.....	20	3x3H.P.	5.10	.60
Orchard	612DD	Osborne, Columbia Mower, Malleable Head, K284; D Mower, 1898-01.....	24	3x3H.P.	5.90	.60
Osar	615G	Osborne, Malleable Pin Head, B587, Sections on Bottom of Rod.....	25	3x3L.P.	6.10	1.00
Oscillate	615H	Osborne, Malleable Pin Head, B587, Sections on Bottom of Rod.....	29	3x3L.P.	6.70	1.00
Obey	615R	Osborne, Malleable Head, K520, Thick Back, Columbia "C" Mower, 1902-05.....	18	3x3H.P.	4.70	.60
Object	615S	Osborne, Malleable Head, K520, Thick Back, Columbia "C" and "D" Mowers, 1902-05	20	3x3H.P.	5.10	.60
Oblate	615T	Osborne, Malleable Head, K520, Thick Back, Col- umbia "D" Mower, 1902- 05.....	24	3x3H.P.	5.90	.60
Oblation	615TA	Osborne, Malleable Head, K520, Thick Back, Col- umbia "D" Mower, 1902- 05.....	28	3x3H.P.	6.70	.60
Obit	615U	Osborne, Malleable Head, C328, Columbia Harvester, 1902-06; Osborne Har- vester, 1905 and since....	21	3x3L.P.	5.05	.60
Operate	615V	Osborne, Malleable Head, C328, Columbia Harvester, 1902-06; Osborne Har- vester, 1905 and since....	25	3x3L.P.	5.85	.60
Operation	615W	Osborne, Malleable Head, C328, Columbia Harvester, 1902-06; Osborne Har- vester, 1905 and since....	29	3x3L.P.	6.65	.60
Old	615AA	Osborne, Malleable Head, K512, Columbia "C" Mow- er, 1902-05.....	18	3x3 $\frac{3}{16}$	5.00	.80
Older	615AB	Osborne, Malleable Head, K512, Columbia "B" and "C" Mowers, 1902-05....	16	3x3 $\frac{3}{16}$	4.60	.80
Observe	615BB	Osborne, Malleable Head, K512, Columbia "C" and "D" Mowers, 1902-05....	20	3x3 $\frac{3}{16}$	5.40	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives each	Price of Extra Heads each
Observing	615CC	Osborne, Malleable Head, K512, Columbia "D" Mow- er, 1902-05.	24	3x3 $\frac{3}{16}$	\$6.20	\$0.80
Obscure	615DD	Osborne, Malleable Head, K677, No. 2 Mower, 1903- 04.	18	3x3 $\frac{3}{16}$	5.00	.80
Oblige	615EE	Osborne, Malleable Head, K677, No. 2 Mower, 1903 and since.	20	3x3 $\frac{3}{16}$	5.40	.80
Obligate	615FF	Osborne, Malleable Head, K677, No. 3 Mower, 1903- 04.	24	3x3 $\frac{3}{16}$	6.20	.80
Obliging	615FG	Osborne, Malleable Head, K677, No. 3 Mower, 1904.	28	3x3 $\frac{3}{16}$	7.00	.80
Obligingly	615II	Osborne, Malleable Head, K774, No. 1 Mower, 1905 and since.	14	3x3 $\frac{3}{16}$	4.20	.80
Obligation	615JJ	Osborne, Malleable Head, K774, Nos. 1 and 2 Mow- ers, 1905 and since.	16	3x3 $\frac{3}{16}$	4.60	.80
Oblong	615KK	Osborne, Malleable Head, K774, Nos. 2 and 3 Mow- ers, 1905 and since.	20	3x3 $\frac{3}{16}$	5.40	.80
Obliterate	615LL	Osborne, Malleable Head, K774, No. 3 Mower, 1905 and since.	24	3x3 $\frac{3}{16}$	6.20	.80
Obliteration	615MM	Osborne, Malleable Head, K774, No. 2 Mower, 1905 and since.	18	3x3 $\frac{3}{16}$	5.00	.80
Obliterating	615NN	Osborne, Malleable Head, K774, No. 3 Mower, 1905 and since.	28	3x3 $\frac{3}{16}$	7.00	.80
Patty	623	Peerless, No. 8, Mower, Malle- able Head, No. 670.	16	3x3	5.30	1.00
Parable	623A	Peerless, No. 8, Mower, Malle- able Head, No. 670.	18	3x3	5.70	1.00
Parachute	623B	Peerless, No. 8, Mower, Malle- able Head, No. 670.	19	3x3	5.90	1.00
Paraclete	623C	Peerless, No. 8, Mower, Malle- able Head, No. 670.	20	3x3	6.10	1.00
Parapet	626C	Plano, Mower ("Warrior"), Malleable Head, No. 1699.	20	2 $\frac{1}{2}$ x2 $\frac{1}{8}$	5.20	.80
Parasite	626D	Plano, Mower ("Warrior"), Malleable Head, No. 1699.	22	2 $\frac{1}{2}$ x2 $\frac{1}{8}$	5.50	.80
Parquet	626N	Plano, Jones Chain Mower, Malleable Head, No. 1699, 1891-93.	24	3x3 $\frac{1}{8}$	6.70	.80
Parrel	626O	Plano, Jones Chain Mower, Malleable Head, No. 1699 1889-94.	17	3x3 $\frac{1}{8}$	5.30	.80
Parrock	626P	Plano, Jones Chain Mower, Malleable Head, No. 1699 1889-93.	20	3x3 $\frac{1}{8}$	5.90	.80
Placitory	626WA	Plano, Flax, Malleable Head, L66, Jones Lever Binder, No. 1, 1896-07; No. 2, 1899-07, Short Register.	20	3x2 $\frac{7}{16}$	4.75	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Placidness	626WB	Plano, Flax, Malleable Head, L66, Jones Lever Binder, No. 1, 1896-07; No. 2, 1899-07, Short Register...	24	3x2 $\frac{7}{16}$	\$5.35	\$.80
Placing	626WC	Plano, Flax, Malleable Head, L66, Jones Lever Binder, No. 1, 1896-07; No. 2, 1899-07, Short Register...	28	3x2 $\frac{7}{16}$	5.95	.80
Placit	626WD	Plano, Flax, Malleable Head, L66, Jones Lever Binder, No. 1, 1904-07, Short Register	32	3x2 $\frac{7}{16}$	6.55	.80
Placate	626WG	Plano, Flax, Malleable Head, L66, Jones Lever Binder, No. 2, 1896-98; Long Register	20	3x2 $\frac{7}{16}$	4.75	.80
Placard	626WH	Plano, Flax, Malleable Head, L66, Jones Lever Binder, No. 2, 1896-98, Long Register	24	3x2 $\frac{7}{16}$	5.35	.80
Placket	626WI	Plano, Flax, Malleable Head, L66, Jones Lever Binder, No. 2, 1896-98, Long Register	26	3x2 $\frac{7}{16}$	5.65	.80
Placeman	626WJ	Plano, Flax, Malleable Head, L66, Jones Lever Binder, No. 2, 1896-98, Long Register	28	3x2 $\frac{7}{16}$	5.95	.80
Planet	627	Plano, Mower, Malleable Head, No. 1699, 1893	20	3x3 $\frac{1}{8}$	6.00	.80
Planch	627A	Plano, Mower, Malleable Head, No. 1699, 1893	24	3x3 $\frac{1}{8}$	6.80	.80
Plane	627AA	Plano, Flax, Malleable Pin Head, R520, R. H.	20	3x2 $\frac{1}{2}$	5.50	.80
Plangent	627AB	Plano, Flax, Malleable Pin Head, R520, R. H.	24	3x2 $\frac{1}{2}$	6.10	.80
Plash	628	Plano, Flax, Malleable Head, A36, 1891-95, Light Steel Binder	21	3x2 $\frac{5}{8}$	4.90	.80
Plastic	628A	Plano, Flax, Malleable Head, A36, 1891-95, Light Steel Binder	25	3x2 $\frac{5}{8}$	5.50	.80
Plank	628B	Plano, Flax, Malleable Head, A36, 1891-95, Light Steel Binder	29	3x2 $\frac{5}{8}$	6.10	.80
Plack	628D	Plano, Header, Flax, Wrought Pin Head, 1896	35	4x2	10.50	1.60
Plagal	628K	Plano (Flax for Reaper), Mal- leable Head, No. X87	19	3x3 $\frac{1}{8}$	5.70	.80
Plebeian	629	Plano, Mower, Malleable Ball Head, J94, Jones Chain Drive, Thin Bar, 1895-97	17	3x3 $\frac{1}{8}$	5.30	.80
Pledge	629A	Plano, Mower, Malleable Ball Head, J94, Jones Chain Drive, Thin Bar, 1897	18	3x3 $\frac{1}{8}$	5.50	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Plover	629B	Plano , Mower, Malleable Ball Head, J94, Jones Chain Drive, Thin Bar, 1894-97	20	3x3 $\frac{1}{8}$	\$5.90	\$.80
Poise	629C	Plano , Mower, Malleable Ball Head, J94, Jones Chain Drive, Thin Bar, 1894-97	24	3x3 $\frac{1}{8}$	6.80	.80
Poised	629CA	Plano , Mower, Malleable Head, J94, Jones Chain Drive, Thin Bar, 1896-97	28	3x3 $\frac{1}{8}$	7.60	.80
Poison	629D	Plano , Malleable Ball Head, J94, with Thick Bar and Black Top Sections, Jones Chain Drive, 1898-07	18	3x3 $\frac{1}{8}$	5.50	.80
Poitrel	629E	Plano , Malleable Ball Head, J94, with Thick Bar and Black Top Sections, Jones Chain Drive, 1898-07	20	3x3 $\frac{1}{8}$	5.90	.80
Poke	629F	Plano , Malleable Ball Head, J94, with Thick Bar and Black Top Sections, Jones Chain Drive, 1898-07	24	3x3 $\frac{1}{8}$	6.80	.80
Poked	629FA	Plano , Mower, Malleable Ball Head, J94, Thick Bar and Black Top Sections, Jones Chain Drive, 1898-07	28	3x3 $\frac{1}{8}$	7.60	.80
Poker	629G	Plano , Malleable Head, L395, 1899, Foreign	20	3x2 $\frac{1}{2}$	4.75	.80
Pokish	629H	Plano , Malleable Head, L395, 1899, Foreign	24	3x2 $\frac{1}{2}$	5.35	.80
Polar	629J	Plano , Malleable Head, L395, 1899, Foreign	28	3x2 $\frac{1}{2}$	6.00	.80
Polemic	632A	Plano , Jones, Vertical and Big Vertical Mowers, 1901-03, Malleable Head, No. J429	18	3x3 $\frac{1}{8}$	5.50	.80
Polemist	632B	Plano , Jones, Vertical and Big Vertical Mowers, 1901-03, Malleable Head, No. J429	20	3x3 $\frac{1}{8}$	5.90	.80
Police	632C	Plano , Jones, Big Vertical Mower, 1901-03, Malleable Head, No. J429	24	3x3 $\frac{1}{8}$	6.80	.80
Policy	632D	Plano , Jones, Big Vertical Mower, 1901-03, Malleable Head, No. J429	28	3x3 $\frac{1}{8}$	7.60	.80
Pauper	638A	Plano , Malleable Head, L633, New Plano Binder, 1903-06	20	3x3	6.10	.80
Paradigm	638B	Plano , Malleable Head, L633, New Plano Binder, 1903-06	24	3x3	7.00	.80
Paradise	638C	Plano , Malleable Head, L633, New Plano Binder, 1903-06	28	3x3	7.80	.80
Ramadan	671	Rawson Mower No. 5, Malleable Ball Head, No. 274, 1882	19	2 $\frac{1}{2}$ x3 $\frac{1}{8}$	5.35	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives each	Price of Extra Heads each
Ramberge	671A	Rawson Mower No. 5, Malleable Ball Head, No. 274, 1882.....	20	2½x3½	\$5.50	\$0.80
Rambuse	671B	Rawson Mower No. 5, Malleable Ball Head, No. 274, 1882.....	21	2½x3½	5.65	.80
Reverter	671C	Rawson "Boss" Mower, Malleable Ball Head, No. 275, 1883 and since	17	3x3½	5.30	.70
Revesture	671D	Rawson "Boss" Mower, Malleable Ball Head, No. 275, 1883 and since	18	3x3½	5.50	.70
Review	696	Red, White and Blue Mower, Malleable Head, No. 537 ..	17	3x3½	5.20	.70
Revince	696A	Red, White and Blue Mower, Malleable Head, No. 537 ..	18	3x3½	5.40	.70
Revival	696B	Red, White and Blue Mower, Malleable Head, No. 537 ..	20	3x3½	5.80	.70
Reviver	696C	Red, White and Blue Mower, Malleable Head, No. 537 ..	24	3x3½	6.60	.70
Shamley	705	Sandwich ("Argentine"), Mower, Malleable Head, B55 ..	17	3x3 17/16	5.60	.80
Shampoo	705A	Sandwich ("Argentine"), Mower, Malleable Head, B55 ..	20	3x3 7/16	6.20	.80
Shalm	705B	Sandwich ("Argentine"), Mower, Malleable Swivel Head, B132, 1889	17	3x3½	5.70	1.00
Sandbag	706	Sandwich ("Argentine"), Mower, Malleable Head, B55 ..	17	3x3½	5.50	.80
Sandbox	706A	Sandwich ("Argentine"), Mower, Malleable Head, B55 ..	20	3x3½	6.10	.80
Sandbath	706B	Sandwich ("Argentine"), Mower, Malleable Head, B55 ..	18	3x3½	5.70	.80
Sandfly	707	Sandwich ("Argentine"), Mower, Malleable Head, C56 ..	18	3x3½	6.30	1.20
Sandglass	707A	Sandwich ("Argentine"), Mower, Malleable Head, C56 ..	20	3x3½	6.90	1.20
Satchell	741	Standard, see Emerson. Seymour or Triumph , Malleable Globe Head, No. 615 ..	18	3x3½	5.50	.70
Satire	742	Seymour or Triumph , Malleable Globe Head, No. 615 ..	17	3x3½	5.30	.70
Satin	743	Seymour or Triumph , Malleable Globe Head, No. 615 ..	16	3x3½	5.10	.70
Shalin	752	Steele Mower, Malleable Head, No. 53	17	3x3½	5.30	.80
Shammer	753	Steele Mower, Malleable Head, No. 53, 1887	17	3x3½	5.30	.80
Tabby	769	Triumph , Reaper, No. 2, Globe Malleable Head, No. 615 ..	19	3x3½	5.70	.70
Tedder	775	Triumph Mower, No. 4, Malleable Head, C139	17	3x3½	5.50	.80
Tedium	775A	Triumph Mower, No. 4, Malleable Head, C139	18	3x3½	5.70	.80
Tecum	775B	Triumph Mower, No. 4, Malleable Head, C139	20	3x3½	6.10	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Telephone	775E	Triumph Mower, No. 4, Malleable Head, C155, 1890 . . .	17	3x3 $\frac{1}{8}$	\$5.50	\$0.80
Telescope	775F	Triumph Mower, No. 4, Malleable Head, C155, 1890 . . .	18	3x3 $\frac{1}{8}$	5.70	.80
Triologue	775G	Triumph Mower, No. 4, Malleable Head, C155, 1890 . . .	20	3x3 $\frac{1}{8}$	6.10	.80
Triander	775H	Triumph Mower, No. 4, Malleable Head, C155, 1890 . . .	24	3x3 $\frac{1}{8}$	6.90	.80
Taurine	782	Tiger Mower, Malleable Head, M23, Ridged Head	17	3x3 $\frac{1}{8}$	5.30	.80
Taurus	782A	Tiger Mower, Malleable Head, M23, Ridged Head	18	3x3 $\frac{1}{8}$	5.50	.80
Teaset	782B	Tiger Mower, Malleable Head, M23, Ridged Head	20	3x3 $\frac{1}{8}$	5.90	.80
Teaspoon	782C	Tiger Mower, Malleable Head, M23, Ridged Head	24	3x3 $\frac{1}{8}$	6.70	.80
Teat	782D	Tiger , Malleable Head, M23-BX, Flat Rib, California and Oregon	17	3x3 $\frac{1}{8}$	5.30	.80
Teathe	782E	Tiger , Malleable Head, M23-BX, Flat Rib, California and Oregon	18	3x3 $\frac{1}{8}$	5.50	.80
Teazer	782F	Tiger , Malleable Head, M23-BX, Flat Rib, California and Oregon	20	3x3 $\frac{1}{8}$	5.90	.80
Teazle	782G	Tiger , Malleable Head, M23-BX, Flat Rib, California and Oregon	24	3x3 $\frac{1}{8}$	6.70	.80
Tierce	783	Tiger Mower, Malleable Head, M513, 1888-90	17	3x3 $\frac{1}{8}$	6.30	1.20
Tiewig	783A	Tiger Mower, Malleable Head, M513, 1888-90	18	3x3 $\frac{1}{8}$	6.50	1.20
Tiff	783B	Tiger Mower, Malleable Head, M513, 1888-90	20	3x3 $\frac{1}{8}$	6.90	1.20
Tiffish	783C	Tiger Mower, Malleable Head, M513, 1888-90	24	3x3 $\frac{1}{8}$	7.80	1.20
Tight	783M	Tiger Mower, Malleable Head, M120, 1890-91	17	3x3 $\frac{1}{8}$	5.30	.80
Tighten	783N	Tiger Mower, Malleable Head, M120, 1890-91	18	3x3 $\frac{1}{8}$	5.50	.80
Tighter	783P	Tiger Mower, Malleable Head, M120, 1890-91	20	3x3 $\frac{1}{8}$	5.90	.80
Tightness	783R	Tiger Mower, Malleable Head, M120, 1890-91	24	3x3 $\frac{1}{8}$	6.70	.80
Tig	784	Tiger Mower, Malleable Head, M174, 1891	17	3x3 $\frac{1}{8}$	5.30	.80
Tigella	784A	Tiger Mower, Malleable Head, M174, 1891	18	3x3 $\frac{1}{8}$	5.50	.80
Tigrine	784B	Tiger Mower, Malleable Head, M174, 1891	20	3x3 $\frac{1}{8}$	5.90	.80
Tigrish	784C	Tiger Mower, Malleable Head, M174, 1891	24	3x3 $\frac{1}{8}$	6.70	.80
Waft	841	Warrior , Mower (Bramer or Deering), Malleable Head, No. 1470	24	2 $\frac{1}{4}$ x3	6.10	.80

MOWER AND REAPER SMOOTH KNIVES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Wager	842	Warrior, Mower (Bramer or Deering), Malleable Head, No. 1470	22	2½x3	\$5.90	\$0.80
Wagon	843	Warrior, Mower (Bramer or Deering), Malleable Head, No. 1470	18	2½x3	5.40	.80
Waiter	845	Warrior, Mower, "Plano" Malleable Head, No. 1699, 1879 and since	16	2½x2½	4.60	.80
Wakeman	846	Warrior, Mower, "Plano" Malleable Head, No. 1699, 1879 and since	17	2½x2½	4.80	.80
Waist	847	Warrior, Mower, "Plano" Malleable Head, No. 1699, 1879 and since	19	2½x2½	5.10	.80
Waitress	848	Warrior, Mower, "Plano" Malleable Head, No. 1699, 1879 and since	20	2½x2½	5.20	.80
Wainscott	849	Warrior, Mower, "Plano" Malleable Head, No. 1699, 1879 and since	21	2½x2½	5.40	.80
Waive	850	Warrior, Mower, "Plano" Malleable Head, No. 1699, 1879 and since	22	2½x2½	5.50	.80
Watch	864	Wood, Iron Mower, 1871 and since, Malleable Head, No. 53	18	3x2½	4.10	.50
Water	865	Wood, Iron Mower, 1871 and since, Malleable Head, No. 53	17	3x2½	3.90	.50
Waddle	866	Wood, Iron Mower, 1871 and since, Malleable Head, No. 53	16	3x2½	3.75	.50
Waver	866F	Wood, Iron Mower, 1871 and since, Malleable Head, No. 53	14	3x2½	3.45	.50
Woeful	867A	Wood, Cyclone Tubular Mower, Malleable Head, 2034, 1895 and since	18	3x3½	4.30	.60
Woefulness	867B	Wood, Cyclone Tubular mower, Malleable Head, 2034, 1895 and since	20	3x3½	4.70	.60
Woesome	867C	Wood, Cyclone Tubular Mower, Malleable Head, 2034, 1895 and since	24	3x3½	5.50	.60
Weaken	868	Wood, New Iron Mower, Malleable Head, No. 176, Enclosed Gear Mower, 1878 only	18	3x3½	4.40	.50
Wealth	869	Wood, New Iron Mower, Malleable Head, No. 176, Enclosed Gear Mower, 1878 only	17	3x3½	4.20	.50

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME.	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra heads each
Weapon	870	Wood, New Iron Mower, Malleable Head, No. 176, Enclosed Gear Mower, 1878 only	16	3x3 $\frac{1}{8}$	\$4 05	\$0.50
Wear	871	Wood, Malleable Head, No. 1265, Enclosed Gear Mower, 1879 and since	18	3x3 $\frac{1}{8}$	4.40	.50
Weary	872	Wood, Malleable Head, No. 1265, Enc. Gear Mower, 1879 and since	17	3x3 $\frac{1}{8}$	4.20	.50
Weasand	873	Wood, Malleable Head, No. 1265, Enc. Gear Mower, 1879 and since	16	3x3 $\frac{1}{8}$	4.05	.50
Warder	873C	Wood, Tubular Steel Mower, 1890 only, Malleable Head, No. 1620	17	3x2 $\frac{3}{8}$	4.10	.60
Wardian	873D	Wood, Tubular Steel Mower, 1890 only, Malleable Head, No. 1620	18	3x2 $\frac{3}{8}$	4.30	.60
Wardmote	873E	Wood, Tubular Steel Mower, 1890 only, Malleable Head, No. 1620	20	3x2 $\frac{3}{8}$	4.70	.60
Wardpenny	873F	Wood, Tubular Steel Mower, 1890 only, Malleable Head, No. 1620	24	3x2 $\frac{3}{8}$	5.50	.60
Ware	873K	Wood, Tubular Steel Mower, 1891, Malleable Ball Head, No. 1784	17	3x2 $\frac{3}{8}$	4.10	.60
Wareful	873L	Wood, Tubular Steel, Mower, 1891, Malleable Ball Head, No. 1784	18	3x2 $\frac{3}{8}$	4.30	.60
Warehouse	873M	Wood, Tubular Steel Mower, 1891, Malleable Ball Head, No. 1784	20	3x2 $\frac{3}{8}$	4.70	.60
Wareless	873N	Wood, Tubular Steel Mower, 1891, Malleable Ball Head, No. 1784	24	3x2 $\frac{3}{8}$	5.50	.60
Wipe	873O	Wood, Tubular Steel Mower, with P.P. Guard, 1891 and since, Malleable Head, No. 1810	17	3x2 $\frac{3}{8}$	4.10	.60
Wiper	873P	Wood, Tubular Steel Mower, with P.P. Guard, 1891 and since, Malleable Head, No. 1810	18	3x2 $\frac{3}{8}$	4.30	.60
Wire	873Q	Wood, Tubular Steel Mower, with P.P. Guard, 1891 and since, Malleable Head, No. 1810	20	3x2 $\frac{3}{8}$	4.70	.60
Wiry	873R	Wood, Tubular Steel Mower, with P.P. Guard, 1891 and since, Malleable Head, No. 1810	24	3x2 $\frac{3}{8}$	5.50	.60

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Wall	873S	Wood, Malleable Head, No. 1680, Enclosed Gear, Wood Pitman, 1891 and since; Giant Mower, with "A" Guard, 1901 and since; Tubular Steel with "A" Guard, 1892 and since....	17	3x3½	\$4.30	\$0.60
Wallcress	873T	Wood, Malleable Head, No. 1680, Enclosed Gear, Wood Pitman, 1891 and since; Giant Mower, with "A" Guard, 1901 and since; Tubular Steel, with "A" Guard, 1892 and since....	18	3x3½	4.50	.60
Walleye	873U	Wood, Malleable Head, No. 1680, Enclosed Gear, Wood Pitman, 1891 and since; Giant Mower, with "A" Guard, 1901 and since; Tubular Steel, with "A" Guard, 1892 and since....	20	3x3½	4 90	.60
Walloon	873V	Wood, Malleable Head, No. 1680, Enclosed Gear, Wood Pitman, 1891 and since; Giant Mower, with "A" Guard, 1901 and since; Tubular Steel, with "A" Guard, 1892 and since....	24	3x3½	5.70	.60
Wringbolt	874	Wood, Malleable Head, No. 1294, Enclosed Gear, without Tilt, 1880 and since....	17	3x3½	4.20	.50
Wallflower	874C	Wood, Enclosed Gear, Tilt Bar, Malleable Head, No. 1483, 1885-86....	17	3x3½	4.50	.60
Walltent	874D	Wood, Enclosed Gear, Tilt Bar, Malleable Head, No. 1483, 1885-86....	18	3x3½	4.70	.60
Washouse	874E	Wood, Enclosed Gear, Tilt Bar, Malleable Head, No. 1483, 1885-86....	20	3x3½	5.10	.60
Watchfield	874G	Wood, Enclosed Gear, Tilt Bar, Malleable Head, No. 470, 1887-89-90 and '92....	14	3x3½	3.90	.60
Waterbath	874H	Wood, Enclosed Gear, Tilt Bar, Malleable Head, No. 470, 1887-89-90 and '92....	16	3x3½	4.30	.60
Watchnight	874I	Wood, Enclosed Gear, Tilt Bar, Malleable Head, No. 470, 1887-89-90 and '92....	17	3x3½	4.50	.60
Waterback	874J	Wood, Enclosed Gear, Tilt Bar, Malleable Head, No. 470, 1887-89-90 and '92....	18	3x3½	4.70	.60

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives each	Price of Extra Heads each
Waxplant	874K	Wood, Enclosed Gear, Tilt Bar, Malleable Head, No. 470, 1887-89-90 and '92.....	20	3x3 $\frac{1}{8}$	\$5.10	\$0.60
Welcher	874L	Wood, Enclosed Gear, Tilt Bar, Malleable Head, No. 470, 1887-89-90 and '92.....	24	3x3 $\frac{1}{8}$	5.90	.60
Wildfire	874M	Wood, Tilt Bar, Malleable Head, No. 544, 1888 only..	14	3x3 $\frac{1}{8}$	3.70	.60
Wistara	874N	Wood, Tilt Bar, Malleable Head, No. 544, 1888 only.	16	3x3 $\frac{1}{8}$	4.10	.60
Wone	874O	Wood, Tilt Bar, Malleable Head, No. 544, 1888 only.	17	3x3 $\frac{1}{8}$	4.30	.60
Woodbine	874P	Wood, Tilt Bar, Malleable Head, No. 544, 1888 only.	18	3x3 $\frac{1}{8}$	4.50	.60
Woodtick	874Q	Wood, Tilt Bar, Malleable Head, No. 544, 1888 only.	20	3x3 $\frac{1}{8}$	4.90	.60
Woodbee	874R	Wood, Tilt Bar, Malleable Head, No. 544, 1888 only.	24	3x3 $\frac{1}{8}$	5.70	.60
Webster	879	Wood, Sr., Sweep Rake Reaper, Malleable Head, No. 57 .	20	3x2 $\frac{5}{8}$	4.45	.50
Wed	880	Wood, Jr., Sweep Rake Reaper, Malleable Head, No. 57...	18	3x2 $\frac{5}{8}$	4.10	.50
Wedlock	882	Wood, Cyclone Tubular Mower, Malleable Head, C558, 1894 only.....	18	3x3 $\frac{1}{8}$	4.70	.60
Whist	882A	Wood, Cyclone Tubular Mower, Malleable Head, C558, 1894 only.....	20	3x3 $\frac{1}{8}$	5.10	.60
Widow	882B	Wood, Cyclone Tubular Mower, Malleable Head, C558, 1894 only.....	24	3x3 $\frac{1}{8}$	5.90	.60
Wombat	884	Wood, Open Rear Harvester, 1895-97, Malleable Head, H2036.....	21	3x2 $\frac{5}{8}$	4.80	.60
Woolen	884A	Wood, Open Rear Harvester, 1895-97, Malleable Head, H2036.....	25	3x2 $\frac{5}{8}$	5.30	.60
Wordless	884B	Wood, Open Rear Harvester, 1895-97, Malleable Head, H2036.....	27	3x2 $\frac{5}{8}$	5.60	.60
Wordy	885	Wood, Malleable Pin Head, R. H., No. 232.....	25	3x2 $\frac{3}{16}$	6.00	1.00
Wore	885D	Wood, Malleable Head, No. 1639.....	17	3x2 $\frac{5}{8}$	4.30	.60
Work	885H	Wood, Malleable Head, No. 394, E. G. Mower, No Tilt, 1885 only.....	17	3x3 $\frac{1}{8}$	4.20	.50
Workless	885K	Wood, Malleable Head, H2139, Open Rear Harvester, L. H., 1898 and since; New Century Harvester L. H., 1903 and since.....	21	3x2 $\frac{5}{8}$	4.70	.60

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Worker	885L	Wood, Malleable Head, H2139, Open Rear Harvester L. H., 1898 and since; New Century Harvester L. H., 1903 and since.	25	3x2 $\frac{1}{2}$	\$5.30	\$0.60
Workable	885M	Wood, Malleable Head, H2139, Open Rear Harvester L. H., 1898 and since; New Century Harvester L. H., 1903 and since.	27	3x2 $\frac{1}{2}$	5.60	.60
Working	885N	Wood, Malleable Head, H2139, Open Rear Harvester L. H., 1898 and since; New Century Harvester L. H., 1903 and since.	29	3x2 $\frac{1}{2}$	5.90	.60
Workman	885P	Wood, Cyclone Mower, Head C569, 1895.	18	3x3 $\frac{1}{2}$	4.70	.60
Wormal	885Q	Wood, Cyclone Mower, Head C569, 1895.	20	3x3 $\frac{1}{2}$	5.10	.60
Wormed	885R	Wood, Cyclone Mower, Head C569, 1895.	24	3x3 $\frac{1}{2}$	5.90	.60
Wormul	886	Wood, Malleable Pin Head, No. 1923.	17	3x2 $\frac{1}{2}$	4.10	.60
Wilt	887	Wood, Malleable Head, No. 2479, Tubular Steel Mower, with 2355 Guard, 1903 and since.	17	3x3 $\frac{1}{2}$	4.30	.60
Wilting	887A	Wood, Malleable Head, No. 2479, Tubular Steel Mower, with 2355 Guard, 1903 and since.	18	3x3 $\frac{1}{2}$	4.50	.60
Wife	887B	Wood, Malleable Head, No. 2479, Tubular Steel and Giant Mowers, with 2355 Guard, 1903 and since.	20	3x3 $\frac{1}{2}$	4.90	.60
Wine	887C	Wood, Malleable Head, No. 2479, Tubular Steel and Giant Mowers, with 2355 Guard, 1903 and since.	24	3x3 $\frac{1}{2}$	5.70	.60
Wise	887D	Wood, Malleable Head, No. 2479, Giant Mower, with 2355 Guard, 1903 and since.	28	3x3 $\frac{1}{2}$	6.50	.60
Wheedle	913	Wheeler, No. 6, Malleable Head, W606.	19	3 $\frac{3}{16}$ x3 $\frac{1}{2}$	4.95	.60
Wheel	913A	Wheeler, No. 6, Malleable Head, W606.	18	3 $\frac{3}{16}$ x3 $\frac{1}{2}$	4.75	.60
Wheeze	914	Wheeler, No. 5, Malleable Head, W606.	16	3 $\frac{3}{16}$ x3 $\frac{1}{2}$	4.40	.60
Whelk	915	Wheeler, No. 5 Mower, Malleable Head, W910.	19	3 $\frac{3}{16}$ x3 $\frac{1}{2}$	4.95	.60
Whelm	916	Wheeler, No. 5 Mower, Malleable Head, W910.	18	3 $\frac{3}{16}$ x3 $\frac{1}{2}$	4.75	.60
Whelp	917	Wheeler, No. 5 Mower, Malleable Head, W910.	16	3 $\frac{3}{16}$ x3 $\frac{1}{2}$	4.40	.60

MOWER AND REAPER SMOOTH KNIVES—Continued.

Our Mower and Reaper Smooth Knives will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Woodchuck	919	Whiteley Mower, Steel Head, No. A57, 1890	18	3x3 $\frac{1}{2}$	L.P. \$5.20	\$1.00
Whiterot	919A	Whiteley Mower, Steel Head, No. A57, 1890	20	3x3 $\frac{1}{2}$	L.P. 5.60	1.00
Whitestone	919E	Whiteley's Tricycle Mower, 1891, Wrought Detached Head, No. A206	18	3x3 $\frac{1}{2}$	H.P. 4.50	1.00
Whitewash	919F	Whiteley's Tricycle Mower, 1891, Wrought Detached Head, No. A206	20	3x3 $\frac{1}{2}$	H.P. 4.90	1.00
Whither	919M	Whiteley, Mower, Malleable Head, No. 294	18	3x3 $\frac{1}{2}$	5.00	.80
Whitewood	919N	Whiteley, Mower, Malleable Head, No. 294	20	3x3 $\frac{1}{2}$	5.40	.80
Whiting	919R	Whiteley (Muncie), Vertical Mower, Head, No. 15	18	3x3	4.70	.80
Whitish	919S	Whiteley (Muncie), Vertical Mower, Head, No. 15	20	3x3	5.10	.80

How to Order Mower Knives and Harvester Sickles

Find the Knife in the foregoing list or the Sickle in the following list and order by number or copy the description given, always including the name of Machine, how many cutting sections and their size, and, if possible, the number of the Head.

If Knives or Sickles are wanted of different lengths than those given in our lists, the marginal number of that class with the number of section required should be given.

Parties ordering by telegraph will save the cost of long dispatches by simply using the telegraph cipher word.

If you do not find the Knife or Section which you require listed in this Catalogue, write us, giving complete description, and we can supply you.

Reaper Sickles



Our Reaper Sickles will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Sickles, each	Price of Extra Heads each
Accent	1013	Acme, Harvester, 1895-1900, L. H. Head, No. 2016	24	3x2	\$6.50	\$1.20
Access	1013A	Acme, Harvester, 1898-1900, L. H. Head, No. 2016	28	3x2	7.10	1.20
Accessible	1014	Acme, R. H., Small Binder Head, No. 4036, 1899- 1900	24	3x2	6.50	1.20
Accede	1014A	Acme, R. H., Small Binder Head, No. 4036, 1899- 1900	28	3x2	7.10	1.20
Accessory	1014D	Acme, Hodges Queen Binder, L. H., 1901 and since, Mal- leable Head, V-40	20	3x2½	5.35	.60
Accipiter	1014E	Acme, Hodges Queen Binder, L. H., 1901 and since, Mal- leable Head, V-40	24	3x2½	6.00	.60
Accite	1014F	Acme, Hodges Queen Binder, L. H., 1901 and since, Mal- leable Head, V-40	28	3x2½	6.95	.60
Acclaim	1014G	Acme, Malleable Head, V-258, Hodges Queen Binder, R. H., 1902 and since	20	3x2½	5.35	.60
Acclamation	1014H	Acme, Malleable Head, V-258, Hodges Queen Binder, R. H., 1902 and since	24	3x2½	6.00	.60
Acclimate	1014I	Acme, Malleable Head, V-258, Hodges Queen Binder, R. H., 1902 and since	28	3x2½	6.95	.60
Affinity	1022	Adriance, Reaper, Malleable Head, No. 959	18	3x2½	5.60	.80
Affirm	1023	Adriance, Reaper, Malleable Head, No. 959	20	3x2½	6.00	.80
Addle	1024	Adriance, Binder, Malleable Head, No. 1245A	20	3x2½	6.00	1.20
Addition	1024A	Adriance, Binder, Malleable Head, No. 1245A	24	3x2½	6.80	1.20
Addoom	1025	Adriance, Malleable Head, No. 296, Foreign	20	3x2½	5.40	.80
Aduce	1025A	Adriance, Malleable Head, No. 296, Foreign	21	3x2½	5.60	.80
Admire	1030A	American, Grass Twine, Head, K1356, "Minnie" Har- vester, 1901 and since	21	3½x2½	5.90	.60
Adore	1030B	American, Grass Twine, Head, K1356, "Minnie" Har- vester, 1901 and since	24	3½x2½	6.40	.60
Adult	1030C	American, Grass Twine, Head, K1356, "Minnie" Har- vester, 1901 and since	27	3½x2½	6.90	.60

REAPER SICKLES—Continued.

Our Reaper Sickles will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Sickles, each	Price of Extra Heads each
Behemoth	1115K	Buckeye (Akron), "Banner" Binder, 1890 and since, Head T163	24	3x2½	\$6.00	\$1.00
Behoove	1115M	Buckeye (Akron), "Crane or Frameless" Binder, 1890- 94, Head H700	24	3x2½	6.00	1.00
Behooveful	1115MA	Buckeye (Akron), "Crane or Frameless" Binder, 1895- 1901, Head H700	25	3x2½	6.20	1.00
Blunder	1115N	Buckeye (Akron), "Crane or Frameless" Binder, 1891- 1901, Head H700	20	3x2½	5.30	1.00
Bluffy	1115O	Buckeye (Akron), "Crane or Frameless" Binder, 1891- 1901, Head H700	22	3x2½	5.70	1.00
Bluing	1115P	Buckeye (Akron), "Crane or Frameless" Binder, 1891- 1901, Head H700	28	3x2½	6.70	1.00
Bud	1115Q	Buckeye (Akron), Head H955, Frameless, 1902	20	3x2½	5.30	1.00
Budded	1115R	Buckeye (Akron), Head H955, Frameless, 1902	24	3x2½	6.00	1.00
Budding	1115S	Buckeye (Akron), Head H955, Frameless, 1902	28	3x2½	6.70	1.00
Buddle	1116D	Buckeye , Head, E107, Reel Rake, 1898 and since	17	3x2¾	5.30	.80
Budget	1116E	Buckeye , Head E107, Reel Rake, 1898 and since	20	3x2¾	5.90	.80
Body	1117	Buckeye , Weed, Wrot. Head, 1903	24	3x2¾	8.00	1.00
Boil	1240A	Champion , Malleable Head, B639, Rd. Hd. Rivets, Folding Bar Reaper, 1903 and since	19	3x3	4.80	.70
Bomb	1240B	Champion , Malleable Head, B639, Rd. Hd. Rivets, Folding Bar Reaper, 1903 and since	21	3x3	5.20	.70
Border	1242A	Champion , Malleable Head, 3027, New Champion Binder, 1904-05	22	3x3	5.55	.60
Botch	1242B	Champion , Malleable Head, 3027, New Champion Binder, 1904-05	25	3x3	6.15	.60
Carted	1242C	Champion , Malleable Head, 3027, New Champion Binder, 1904-05	28	3x3	6.15	.60
Chromic	1233A	Champion , Harvester, Malle- able Head, No. D323, 1883- 94	21	3x2½	5.55	.60
Chorister	1233B	Champion , Harvester, Malle- able Head, No. D323, 1892- 94	25	3x2½	6.15	.60
Chromide	1233C	Champion , Harvester, Malle- able Head, No. D323, 1892- 94	29	3x2½	6.75	.60

REAPER SICKLES—Continued.

Our Reaper Sickles will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Sickles each	Price of Extra Heads each
Champer	1233D	Champion , Harvester, Malleable Head, No. D323, 1882-91.....	24	3x2 $\frac{1}{8}$	\$6.00	\$0.60
Chatterbox	1233F	Champion , Force Feed Binder, 1895 and since, Malleable Head, No. 1852.....	21	3x2 $\frac{1}{8}$	6.10	1.00
Chauffer	1233G	Champion , Force Feed Binder, 1895 and since, Malleable Head, No. 1852.....	24	3x2 $\frac{1}{8}$	6.50	1.00
Chart	1233H	Champion , Force Feed Binder, 1895 and since, Malleable Head, No. 1852.....	27	3x2 $\frac{1}{8}$	6.95	1.00
Carting	1233I	Champion , Force Feed Binder, 1903 and since, Malleable Head, No. 1852.....	32	3x2 $\frac{1}{8}$	7.70	1.00
Daft	1272	Deering , "Ideal," H. and B., 1898-1903, Malleable Pin Head, H260.....	19	3 $\frac{1}{8}$ x2 $\frac{1}{8}$	4.80	.80
Dag	1272A	Deering , "Ideal," H. and B., 1898-1903, Malleable Pin Head, H260.....	23	3 $\frac{1}{8}$ x2 $\frac{1}{8}$	5.40	.80
Daggle	1272B	Deering , "Ideal," H. and B., 1898-1903 Malleable Pin Head, H260.....	27	3 $\frac{1}{8}$ x2 $\frac{1}{8}$	6.00	.80
Dagging	1272C	Deering , "Ideal," 8 ft. H. and B., 1900-03, Malleable Head, H260.....	31	3 $\frac{1}{8}$ x2 $\frac{1}{8}$	6.60	.80
Dagged	1272D	Deering , "Ideal," H. and B., 1904 and since, Malleable Head, H877.....	19	3 $\frac{1}{8}$ x2 $\frac{1}{8}$	4.80	.80
Dad	1272E	Deering , "Ideal," H. and B., 1904 and since, Malleable Head, H877.....	23	3 $\frac{1}{8}$ x2 $\frac{1}{8}$	5.40	.80
Daddle	1272F	Deering , "Ideal," H. and B., 1904 and since, Malleable Head, H877.....	27	3 $\frac{1}{8}$ x2 $\frac{1}{8}$	6.00	.80
Daddy	1272G	Deering , "Ideal," H. and B., 8 ft., 1904 and since, Malleable Head, H877....	31	3 $\frac{1}{8}$ x2 $\frac{1}{8}$	6.60	.80
Dagon	1273	Deering , Jr. and Imp., Steel Harvester, 1893-1900, Malleable Pin Head, E701....	19	3 $\frac{1}{8}$ x2 $\frac{1}{8}$	4.80	.80
Dahlia	1273A	Deering , Jr. and Imp., Steel Harvester, 1893-1900, Malleable Pin Head, E701....	23	3 $\frac{1}{8}$ x2 $\frac{1}{8}$	5.40	.80
Dahline	1273B	Deering , Jr. and Imp., Steel Harvester, 1893-1900, Malleable Pin Head, E701....	27	3 $\frac{1}{8}$ x2 $\frac{1}{8}$	6.00	.80
Daily	1273D	Deering , "Ideal" Reaper, '94-'99, Head, C259, Foreign....	20	3x2 $\frac{1}{4}$	4.90	.80
Daintily	1273E	Deering , Malleable Head C492, Ideal Reaper, 1900 and since.....	20	3x2 $\frac{1}{4}$	5.10	.80
Daintrel	1273J	Deering , Malleable Pin Head, A296, Foreign.....	19	3 $\frac{1}{8}$ x2 $\frac{1}{8}$	5.20	.80

REAPER SICKLES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Sickles each	Price of Extra Heads each
Dais	1273 K	Deering, Malleable Pin Head, A296, Foreign.....	23	3½x2½	\$6.00	\$0.80
Destroyer	1276	Deering, Malleable Head, E422, All Steel H. and B., 1887.	20	3½x2½	5.00	.80
Desume	1276 A	Deering, Malleable Head, E422, All Steel H. and B., 1887.	24	3½x2½	5.60	.80
Detailer	1276 B	Deering, Malleable Head, E422, All Steel H. and B., 1887.	28	3½x2½	6.20	.80
Detonize	1276 E	Deering, Jr. and Imp., Steel, 1890-93, Malleable Head, No. E449.....	19	3½x2½	4.80	.80
Detractor	1276 F	Deering, Jr. and Imp. Steel, 1890-93, Malleable Head, No. E449.....	23	3½x2½	5.40	.80
Detritus	1276 G	Deering, Jr. and Imp. Steel, 1890-93, Malleable Head, No. E449.....	27	3½x2½	6.00	.80
Dearborn	1277	Deering, Harvester Pony, 1893- 98, Malleable Head, No. A46.....	19	3½x2½	4.80	.80
Dearling	1277 A	Deering, Harvester Pony, 1893- 98, Malleable Head, No. A46.....	23	3½x2½	5.40	.80
Dearly	1277 B	Deering, Harvester Pony, 1893- 98, Malleable Head, No. A46.....	27	3½x2½	6.00	.80
Dooher	1285	Deering, Head, A316, 1903, Foreign.....	23	3½x2½	5.40	.80
Extraneous	1339 B	Emerson's Standard, Malleable Head, No. 2.....	17	3x2½	5.20	.80
Hookey	1434 K	Header, Benicia, No Head....	44	3x2½	10.70	
Hoosier	1434 L	Header, Benicia, No Head....	52	3x2½	12.60	
Hooven	1434 M	Header, Benicia, No Head....	60	3x2½	14.60	
Hopeful	1434 N	Header, Benicia, No Head....	68	3x2½	16.70	
Hopple	1434 NA	Header, Benicia, No Head....	41	3x2½	10.00	
Horat	1434 NB	Header, Benicia, No Head....	49	3x2½	12.20	
Hopette	1434 NC	Header, Benicia, No Head....	65	3x2½	16.30	
Hope	1434 ND	Header, Benicia, No Head....	38	3x2½	9.40	
Harrisburg	1434 E	Header, Benicia, No Head....	32	4x2 ⅜	9.50	
Hartford	1434 F	Header, Benicia, No Head....	38	4x2 ⅞	10.70	
Horsefoot	1436 J	Header, Holt, O. S., Wrought, Pin Head, 1887.....	42	4x2 ⅞	15.80	1.60
Horsehair	1436 K	Header, Holt, O. S., Wrought Pin Head, 1887.....	48	4x2 ⅞	17.30	1.60
Horseman	1436 L	Header, Holt, O. S., Wrought Pin Head, 1887.....	54	4x2 ⅞	18.80	1.60
Horseplay	1436 M	Header, Holt, O. S., Wrought Pin Head, 1887.....	60	4x2 ⅞	20.30	1.60
Horseshoe	1436 LM	Header, Holt, O. S., Wrought Pin Head, 1887.....	37	4x2 ⅞	14.60	1.60
Horsetail	1436 LN	Header, Holt, O. S., Wrought Pin Head, 1887.....	43	4x2 ⅞	16.10	1.60
Holdfast	1436 MG	Header, Holt, O. S., Wrought Pin Head, 1887.....	49	4x2 ⅞	17.60	1.60
Holibut	1436 MH	Header, Holt, O. S., Wrought Pin Head, 1887.....	55	4x2 ⅞	19.10	1.60

REAPER SICKLES—Continued.

Our Reaper Sickles will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Sickles, each	Price of Extra Heads each
Holidam	1436MI	Header, Holt, O. S., Wrought Pin Head, 1887.....	61	4x2 $\frac{1}{8}$	\$20.60	\$1.60
Hollo	1436MJ	Header, Holt, O. S., Wrought Pin Head, 1887.....	67	4x2 $\frac{1}{8}$	22.40	1.60
Holt	1436MK	Header, Holt, O. S., Wrought Pin Head, 1887.....	73	4x2 $\frac{1}{8}$	25.20	1.60
Hole	1436ML	Header, (Holt, N. S.), Wrought Pin Head, 1892.....	43	4x2 $\frac{1}{8}$	16.10	1.60
Hollander	1436MM	Header (Holt, N. S.), Wrought Pin Head, 1892.....	49	4x2 $\frac{1}{8}$	17.60	1.60
Hollandish	1436MN	Header, (Holt, N. S.), Wrought Pin Head, 1892.....	55	4x2 $\frac{1}{8}$	19.10	1.60
Hollen	1436MO	Header, (Holt, N. S.), Wrought Pin Head, 1892.....	61	4x2 $\frac{1}{8}$	20.60	1.60
Help	1436QN	Header (Harvester King), Mal- leable Head, 1063, S. D., 44 in. Wheel, 1895 and since, S. D., 55 in. Wheel, 1900 and since, D. D., 44 in. Wheel, 1896-1901....	39	3x2	10.50	1.20
Helper	1436QO	Header (Harvester King), Mal- leable Head, 1063, S. D., 44 in. Wheel, 1895 and since, S. D., 55 in. Wheel, 1900 and since; D. D., 44 in. Wheel, 1896-1901....	47	3x2	11.70	1.20
Helping	1436QP	Header (Harvester King), Mal- leable Head, 1063, S. D., 44 in. Wheel, 1895 and since, S. D., 55 in. Wheel, 1900 and since, D. D., 44 in. Wheel, 1896-1901....	55	3x2	12.90	1.20
Hinder	1437A	Header, Plano, Wrought Pin Head, 9297, Randolph, 1892; Plano Steel, 1892; Jones Steel, 1894-97....	39	3x2	10.50	1.40
Hint	1437B	Header, Plano, Wrought Pin Head, 9297, Randolph, 1892; Plano Steel, 1893- 95; Jones Steel, 1894-97..	47	3x2	11.80	1.40
Hip	1437C	Header, Plano, Wrought Pin Head, 9297, Randolph, 1892; Plano Steel, 1893- 95; Jones Steel, 1894-97..	55	3x2	13.10	1.40
Hear	1437F	Header, Plano, Wrought Pin Head, 9297, Jones Steel, 1898-1902.....	29	4x2	9.00	1.60
Hearse	1437G	Header, Plano, Wrought Pin Head, 9297, Jones Steel, 1898-1902.....	35	4x2	10.80	1.60
Heath	1437H	Header, Plano, Wrought Pin Head, 9297, Jones Steel, 1898-1902.....	41	4x2	12.00	1.60

REAPER SICKLES—Continued.

Our Reaper Sickles will fit the below named Machines and are interchangeable with interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Sickles, each	Price of Extra Heads each
Houp	1439A	Header (Hodges), Wrought Pin Head, No. A3014, Chain Drive, 1893 and since; Gear Drive, 1888-96.....	31	4x2 $\frac{3}{16}$	\$9.90	\$1.50
Hourglass	1439B	Header (Hodges), Wrought Pin Head, No. A3014, Chain Drive, 1893 and since; Gear Drive, 1888-96.	37	4x2 $\frac{3}{16}$	11.10	1.50
Hourline	1439C	Header (Hodges), Wrought Pin Head, No. A3014, Chain Drive, 1893 and since; Gear Drive, 1888-96.	43	4x2 $\frac{3}{16}$	12.30	1.50
Housage	1439G	Header (Hodges), Malleable Center Connection, Head H60 No. 2 Oregon S. G. and Calif. S. F. and W. F., 1876-94.....	33	4x2 $\frac{7}{8}$	12.80	1.30
House	1439H	Header (Hodges), Malleable Center Connection, Head, H60, No. 2 Oregon S. G. and Calif. S. F. and W. F., 1876-94.....	39	4x2 $\frac{7}{8}$	14.60	1.30
Housewife	1439I	Header (Hodges), Malleable Center Connection, Head, H60, No. 2 Oregon S. G. and Calif. S. F. and W. F., 1876-94.....	45	4x2 $\frac{7}{8}$	17.30	1.30
Hovel	1439DD	Header (Hodges), Head, B241 and B242, No. 2 Oregon S. G., 1894-1904; Calif. S. F. and W. F., 1894-95.....	32	4x2 $\frac{7}{8}$	12.60	1.30
Hover	1439EE	Header (Hodges), Head, B241 and B242, No. 2 Oregon S. G., 1894-1904; Calif. S. F. and W. F., 1894-95.....	38	4x2 $\frac{7}{8}$	14.00	1.30
Hovering	1439FF	Header (Hodges), Head, B241 and B242, No. 2, Oregon S. G., 1894-1904; Calif. S. F. and W. F., 1894-95.....	44	4x2 $\frac{7}{8}$	16.40	1.30
Hoveringly	1439GG	Header (Hodges), Malleable Head, H60, No. 3 Gear Drive, 1876-1880; No. 2 Oregon S. G., 1888-93; Calif. W. F., 1876-80....	33	4x2 $\frac{3}{16}$	10.80	1.30
How	1439GH	Header (Hodges), Malleable Head, H60, No. 3 Gear Drive, 1876-1880; No. 2 Oregon S. G., 1888-93; Calif. W. F., 1876-80.....	39	4x2 $\frac{3}{16}$	11.95	1.30

REAPER SICKLES—Continued.

Our Reaper Sickles will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Sickles each	Price of Extra Heads each
Howl	1439GI	Header (Hodges), Malleable Head, H60, No. 3 Gear Drive, 1876-1880; No. 2 Oregon S. G., 1888-93; California W. F., 1876-80.	45	4x2 $\frac{3}{16}$	\$13.25	\$1.30
Howled	1440	Header (Deering), Malleable Head, 515, Push Header and Push Binder, 1902-03	36	3 $\frac{1}{2}$ x2 $\frac{3}{16}$	9.00	.80
Howling	1440A	Header (Deering), Malleable Head, 515, Push Header and Push Binder, 1902-03	44	3 $\frac{1}{2}$ x2 $\frac{3}{16}$	9.80	.80
Howso	1440B	Header (Deering), Malleable Head, 515, Push Header and Push Binder, 1902-03	52	3 $\frac{1}{2}$ x2 $\frac{3}{16}$	10.60	.80
Hoy	1440C	Header (Deering), Malleable Head, 787, Push Header and Push Binder, 1904-06, Serrated.	36	3 $\frac{1}{2}$ x2 $\frac{3}{16}$	9.00	.80
Hose	1440D	Header (Deering), Malleable Head, 787, Push Header and Push Binder, 1904-06, Serrated.	44	3 $\frac{1}{2}$ x2 $\frac{3}{16}$	9.80	.80
Hosier	1440E	Header (Deering), Malleable Head, 787, Push Header and Push Binder, 1904-06, Serrated.	52	3 $\frac{1}{2}$ x2 $\frac{3}{16}$	10.60	.80
Hosiery	1440F	Header (Deering), Malleable Head, 787, Push Header and Push Binder, Smooth.	36	3 $\frac{1}{2}$ x2 $\frac{3}{16}$	9.00	.80
Hospitable	1440G	Header (Deering), Malleable Head, 787, Push Header and Push Binder, Smooth.	44	3 $\frac{1}{2}$ x2 $\frac{3}{16}$	9.80	.80
Hospitality	1440H	Header (Deering), Malleable Head, 806, Push Header, 1905-06; Spokane and Portland.	27	4 $\frac{5}{32}$ x2 $\frac{5}{32}$	9.00	.80
Hospitate	1440I	Header (Deering), Malleable Head, 806, Push Header, 1905-06; Spokane and Portland.	33	4 $\frac{5}{32}$ x2 $\frac{5}{32}$	9.80	.80
Host	1440J	Header (Deering), Malleable Head, 806, Push Header, 1905-06; Spokane and Portland.	39	4 $\frac{5}{32}$ x2 $\frac{5}{32}$	10.60	.80
Hemina	1450A	Header, McCormick, Wrought Head, J191, 1900 only.	36	4x2 $\frac{3}{16}$	10.90	1.50
Hemlock	1450C	Header, McCormick, Wrought Head, J191, 1900 only.	42	4x2 $\frac{3}{16}$	12.30	1.50
Hemp	1450D	Header (McCormick), Wrought Head, J191, 1901 and since	30	4x2 $\frac{1}{16}$	8.50	1.40
Hempen	1450E	Header (McCormick), Wrought Head, J191, 1901 and since	36	4x2 $\frac{1}{16}$	9.50	1.40
Hempy	1450F	Header (McCormick), Wrought Head, J191, 1901 and since	42	4x2 $\frac{1}{16}$	10.50	1.40

REAPER SICKLES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Sickles, each	Price of Extra Heads each
Hem	1450G	Header (McCormick Header Binder), 1902 and since, Steel Head, J361	38	3x2½	\$9.50	\$1.40
Hematosia	1450H	Header (McCormick Header Binder), 1902 and since, Steel Head, J361	46	3x2½	10.50	1.40
Jolly	1505	Johnston, Malleable Pin Head, No. L16, Bonnie Binder, 1895	21	3x2½	6.00	1.00
Jollification	1505A	Johnston, Malleable Pin Head, No. L16, Bonnie Binder, 1895	25	3x2½	6.75	1.00
Jolliness	1505B	Johnston, Malleable Pin Head, No. L16, Bonnie Binder, 1895	27	3x2½	6.20	1.00
Joke	1505D	Johnston, Bonnie Binder, 1896-98, Malleable Pin Head, No. L296	22	3x2½ L.P.	6.00	1.00
Jokingly	1505E	Johnston, Bonnie Binder, 1896-98, Malleable Pin Head, No. L296	26	3x2½ L.P.	6.75	1.00
Joust	1505F	Johnston, Bonnie Binder, Malleable Pin Head, L296	19	3x2½ L.P.	5.50	1.00
Jove	1505G	Johnston, Bonnie Binder, 1896-98, Malleable Pin Head, L296	28	3x2½ L.P.	7.20	1.00
Jovial	1506	Johnston, Malleable Head, K7, L. H. Continental Binder, 1898-99	21	3x2½ L.P.	5.80	1.00
Jowler	1506A	Johnston, Malleable Head, K7, L. H. Continental Binder, 1898-99	25	3x2½ L.P.	6.60	1.00
Joyous	1506B	Johnston, Malleable Head, K7, L. H. Continental Binder, 1898-99	27	3x2½ L.P.	7.00	1.00
Joyed	1507E	Johnston, Malleable Head, 269, Reg. Continental Reaper, 1878-93, Imp. Continental Reaper, 1891 and since	16	3x2½	5.20	.80
Judaic	1507F	Johnston, Malleable Head, 269, Reg. Continental Reaper, 1878-93, Imp. Continental Reaper, 1891 and since	19	3x2½	5.80	.80
Judicious	1507O	Johnston, Malleable Head, L756, Bonnie Binder, 1900 and since, R. H. Continental, 1902 and since	22	3x2½ H.P.	6.00	1.00
Judical	1507N	Johnston, Malleable Head, L756, Bonnie Binder, 1900 and since, R. H. Continental, 1902 and since	26	3x2½ H.P.	6.75	1.00
Judicable	1507M	Johnston, Malleable Head, L756, Bonnie Binder, 1900 and since, R. H. Continental, 1902 and since	28	3x2½ H.P.	7.15	1.00

REAPER SICKLES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Sickles, each	Price of Extra Heads each
Judicative	1507P	Johnston , Malleable Head, L756, Bonnie Binder, 1900 and since, R. H. Continen- tal, 1902 and since	19	3x2 $\frac{3}{8}$ H.P.	\$5.40	\$1.00
Judicatory	1508	Johnston , Malleable Head, K306, L. H. Continental Binder, 1906 and since . . .	20	3x2 $\frac{3}{8}$ H.P.	5.65	1.00
Judicature	1508A	Johnston , Malleable Head, K306, L. H. Continental Binder, 1900-02	21	3x2 $\frac{3}{8}$ H.P.	5.80	1.00
Judicially	1508B	Johnston , Malleable Head, K306, L. H. Continental Binder, 1903-05	22	3x2 $\frac{3}{8}$ H.P.	5.95	1.00
Judiciary	1508C	Johnston , Malleable Head, K306, L. H. Continental Binder, 1906 and since . . .	24	3x2 $\frac{3}{8}$ H.P.	6.25	1.00
Jug	1508D	Johnston , Malleable Head, K306, L. H. Continental Binder, 1900-02	25	3x2 $\frac{3}{8}$ H.P.	6.40	1.00
Juggie	1508E	Johnston , Malleable Head, K306, L. H. Continental Binder, 1903-05	26	3x2 $\frac{3}{8}$ H.P.	6.55	1.00
Juggling	1508F	Johnston , Malleable Head, K306, L. H. Continental Binder, 1900-02	27	3x2 $\frac{3}{8}$ H.P.	6.70	1.00
Juice	1508G	Johnston , Malleable Head, K306, L. H. Continental Binder, 1903 and since . . .	28	3x2 $\frac{3}{8}$ H.P.	6.85	1.00
Jugular	1508H	Johnston , Malleable Head, K306, L. H. Continental Binder, 1906 and since . . .	32	3x2 $\frac{3}{8}$ H.P.	7.50	1.00
Kink	1510	Keystone , Malleable Head, E65, Binder, 1905 and since	24	3x2 $\frac{1}{2}$	6.40	.70
Kite	1510A	Keystone , Malleable Head, E65, Binder, 1905 and since	28	3x2 $\frac{1}{2}$	7.20	.70
Kitten	1510B	Keystone , Malleable Head, E65, Binder, 1905 and since	32	3x2 $\frac{1}{2}$	8.00	.70
Mump	1574A	McCormick , Malleable Head, H918, 1893-99, Open Ele- vator, L. H.	20	3x2 $\frac{1}{2}$	5.60	.70
Munch	1574AB	McCormick , Malleable Head, H918, 1893-99, Open Ele- vator, L. H.	24	3x2 $\frac{1}{2}$	6.40	.70
Mutiny	1574AC	McCormick , Malleable Head, H918, 1893-99, Open Ele- vator, L. H.	28	3x2 $\frac{1}{2}$	7.20	.70
Mural	1574B	McCormick , Malleable Head, K43, 1893, Section Top of Rod, R. H. Open Elevator, 1894-1900; Bindlochine, 1893-95	20	3x2 $\frac{1}{2}$	5.60	.70

REAPER SICKLES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Sickles, each	Price of Extra Heads each
Mure	1574BA	McCormick, Malleable Head, K43, R. H. Open Eleva- tor, Section Top of Rod, 1894-1900; Bindlochine, 1893-95	24	3x2½	\$6.40	\$0.70
Muzzle	1574BB	McCormick, Malleable Head, K43, R. H. Open Eleva- tor, Section Top of Rod, 1894 - 1900; Bindlochine, 1893-95	28	3x2½	7.20	.70
Multiform	1578B	McCormick, Malleable Head, L166 (Wood Pit.), Folding Daisy Reaper, 1890-05; New Folding Daisy, 1905 and since	16	3x2½	4.80	.70
Multiformity	1578C	McCormick, Malleable Head, L166 (Wood Pit.), Folding Daisy Reaper, 1892-05; New Folding Daisy, 1905 and since	18	3x2½	5.10	.70
Murmur	1578D	McCormick, Malleable Head, L166 (Wood Pit.), Folding Daisy Reaper, 1890-05; New Folding Daisy Reaper, 1905 and since	20	3x2½	5.40	.70
Multiformous	1578DA	McCormick, Malleable Head, L166 (Wood Pit.), Folding Daisy Reaper, 1897-1905; New Folding Daisy, 1905 and since	22	3x2½	5.70	.70
Macule	1578E	McCormick, Malleable Head, L303 (Steel Pit.), Folding Daisy Reaper, 1890-1905; New Folding Daisy Reaper, 1905 and since	20	3x2½	5.40	.70
Maculated	1578F	McCormick, Malleable Head, L303 (Steel Pit.), Folding Daisy Reaper, 1893-1905	16	3x2½	4.80	.70
Maculation	1578G	McCormick, Malleable Head, L303 (Steel Pit.), Folding Daisy Reaper, 1892-1905; New Folding Daisy, 1905 and since	18	3x2½	5.10	.70
Mactation	1578H	McCormick, Malleable Head, L303 (Steel Pit.), Folding Daisy Reaper, 1897-1905; New Folding Daisy, 1905 and since	22	3x2½	5.70	.70
Myosis	1579E	McCormick, Malleable Pin Head, H461, 1888-89, Pipe Frame, Harvester . . .	25	3x2½	6.20	.70
Madden	1579G	McCormick, Malleable Head, H732, 1889	25	3x2½	6.20	.70

REAPER SICKLES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Sickles each	Price of Extra Heads each
Madefy	1579J	McCormick, Malleable Head, H732, Pipe Frame, L. H., 1890-1901.....	20	3x2½	\$5.40	\$0.80
Madhouse	1579K	McCormick, Malleable Head, H732, Pipe Frame, L. H., 1890-1901.....	24	3x2½	6.00	.80
Madman	1579L	McCormick, Malleable Head, H732, Pipe Frame, L. H., 1890-1901.....	28	3x2½	6.60	.80
Madness	1579M	McCormick, Malleable Head, K43, Section Bottom of Rod, R. H. Open Elevator, 1895-01.....	20	3x2½	5.60	.70
Music	1579N	McCormick, Malleable Head, K43, Section Bottom of Rod, R. H. Open Elevator, 1895-01.....	24	3x2½	6.40	.70
Musical	1579O	McCormick, Malleable Head, K43, Section Bottom of Rod, R. H. Open Elevator, 1895-01.....	28	3x2½	7.20	.70
Memoir	1580A	McCormick, Head, B410, R. H. New Open Elevator, 1901 and since.....	20	3x2½	5.60	.70
Mental	1580B	McCormick, Head, B410, R. H. New Open Elevator, 1901 and since.....	24	3x2½	6.40	.70
Mericap	1580C	McCormick, Head, B410, R. H. New Open Elevator, 1901 and since.....	28	3x2½	7.20	.70
Mercy	1580D	McCormick, Head, B410, R. H. New Open Elevator, 1901 and since.....	32	3x2½	8.00	.70
Mere	1585A	McCormick, Head, B23, L. H. New Open Elevator, 1901 and since.....	20	3x2½	5.60	.70
Merlon	1585B	McCormick, Head, B23, L. H. New Open Elevator, 1901 and since.....	24	3x2½	6.40	.70
Metal	1585C	McCormick, Head, B23, L. H. New Open Elevator, 1901 and since.....	28	3x2½	7.20	.70
Meter	1585D	McCormick, Head, B23, L. H. New Open Elevator, 1901 and since.....	32	3x2½	8.00	.70
		Minnie, see American Grass Twine Co.				
Mission	1657D	Minneapolis, Gear Drive Binder, 1888-94, Malleable Head, K1540.....	21	3½x2½	5.90	.80
Mormon	1657E	Minneapolis, Gear Drive Binder, 1888-94, Malleable Head, K1540.....	24	3½x2½	6.40	.80
Mosaic	1657M	Minneapolis, Malleable Head, K3011, Chain Drive Binder, 1893 and since, Gear Drive, 1895 and since....	21	3½x2½	5.90	.80

REAPER SICKLES—Continued.

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Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Sickles each	Price of Extra Heads each
Myrrh	1657 N	Minneapolis , Malleable Head, K3011, Chain Drive Binder, 1893 and since, Gear Drive, 1895 and since . . .	24	3½x2½	\$6.40	\$0.80
Myrtle	1657 P	Minneapolis , Malleable Head, K3011, Chain Drive Binder, 1893 and since, Gear Drive, 1895 and since . . .	27	3½x2½	6.90	.80
Madonna	1659 C	Milwaukee , Steel Jr., Harvester, No. 10, L. H. Malleable Head, No. S34, 1890 and since.	20	3½x2 ⅝	4.80	.70
Madrigal	1659 D	Milwaukee , Steel Jr., Harvester, No. 10, L. H. Malleable Head, No. S34, 1889 and since.	23	3½x2 ⅝	5.30	.70
Maffler	1659 E	Milwaukee , Steel Jr., Harvester, No. 10, L. H. Malleable Head, No. S34, 1892 and since.	27	3½x2 ⅝	6.00	.70
Magbote	1659 G	Milwaukee , No. 10, Steel Jr., Harvester, R. H., 1898 and since, Malleable Pin Head, No. SE34	20	3½x2 ⅝	4.80	.70
Mage	1659 H	Milwaukee , No. 10, Steel Jr., Harvester, R. H., 1898 and since, Malleable Pin Head, No. SE34	23	3½x2 ⅝	5.30	.70
Magi	1659 K	Milwaukee , No. 10, Steel Jr., Harvester, R. H., 1898 and since, Malleable Pin Head, No. SE34	27	3½x2 ⅝	6.00	.70
Macadam	1659 L	Milwaukee , No. 12, Harvester, L. H., 1900, Malleable Head, No. SM342	20	2¼x3	4.70	.70
Marshmallow	1659 M	Milwaukee , No. 12, Harvester, L. H., 1900, Malleable Head, No. SM342	24	2¼x3	5.50	.70
Machinal	1659 N	Milwaukee , No. 12, Harvester, L. H., 1901, Malleable Head, No. SL342	20	3½x3	4.80	.70
Macrometer	1659 O	Milwaukee , No. 12, Harvester, L. H., 1901, Malleable Head, No. SL342	24	3½x3	5.60	.70
Maggot	1659 P	Milwaukee , No. 12, Harvester, L. H., 1902 and since, Malleable Head, No. SM-342	20	3 ⅜x3	4.80	.70
Magic	1659 Q	Milwaukee , No. 12, Harvester, L. H., 1902 and since, Malleable Head, No. SM-342	24	3 ⅜x3	5.60	.70
Magical	1659 R	Milwaukee , No. 12, Harvester, L. H., 1906 and since, Malleable Head, No. SL-342	27	2¼x3	6.10	.70

REAPER SICKLES—Continued.

Our Reaper Sickles will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Sickles, each	Price of Extra Heads each
Magician	1659S	Milwaukee , No. 12, Harvester, L. H., 1906 and since, Malleable Head, No. SL- 342.....	27	3½x3	\$6.20	\$0.70
Magilp	1659T	Milwaukee , No. 12, Harvester, L. H., 1907 and since, Malleable Head, No. SM- 342.....	32	2½x3	7.10	.70
Obese	1675	Osborne , Malleable Pin Head, No. B489, Osborne Jr., R. H., 1887-91, New Os- borne, R. H., 1892-94....	25	3x2½	5.80	1.00
Obelisk	1675D	Osborne , Malleable Pin Head, B489, Osborne Jr., R. H., 1887-91; New Osborne, R. H., 1892-94.....	21	3x2½	5.20	1.00
Obeliscal	1675E	Osborne , Malleable Pin Head, B489, Osborne Jr., 1887- 91; New Osborne R. H., 1892-94.....	29	3x2½	6.40	1.00
Octander	1678H	Osborne , Malleable Pin Head, No. B587, Sections on Bot- tom of Rod, No. 11 Bind- er, 1885-91; Jr. L. H., 1888-91.....	29	3x2½	6.40	1.00
Obstructed	1678I	Osborne , Malleable Pin Head, No. B587, Sections on Bot- tom of Rod, No. 11 Bind- er, 1885-91; Jr. L. H., 1888-91.....	21	3x2½	5.20	1.00
Obstruct	1679	Osborne , Malleable Pin Head, No. B587, Sections on Bot- tom of Rod, No. 11 Bind- er, 1885-91; Jr. L. H., 1888-91.....	25	3x2½	5.80	1.00
Obstructing	1679AA	Osborne , Malleable Head, No. B587, Sections on Top of Rod, New Osborne, L. H., 1892-94; Columbia H. & B., L. H., 1895-02.....	21	3x2½	5.20	1.00
Obtension	1679A	Osborne , Malleable Head, No. B587, Sections on Top of Rod; New Osborne L. H., 1892-94; Columbia L. H., 1895-02.....	25	3x2½	5.80	1.00
Obtest	1679B	Osborne , Malleable Head, No. B587, Sections on Top of Rod, New Osborne, L. H., 1892-94; Columbia L. H., 1895-02.....	29	3x2½	6.40	1.00
Ogle	1679C	Osborne , Malleable Head, No. C328, Columbia H. & B., 1902-06; Osborne H. & B., 1905-06.....	21	3x2½	4.80	.60

REAPER SICKLES—Continued.

Our Reaper Sickles will fit the below named Machines and are interchangeable with interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME.	No of Sections	Size of Sections	Price of Sickles each	Price of Extra Heads each
Ointment	1679D	Osborne , Malleable Head, No. C328, Columbia H. & B., 1902-06; Osborne H. & B., 1905-06	25	3x2 $\frac{1}{4}$	\$5.40	\$0.60
Offense	1679E	Osborne , Malleable Head, No. C328, Columbia H. & B., 1902-06; Osborne H. & B., 1905-06	29	3x2 $\frac{1}{4}$	6.00	.60
Obstruction	1679F	Osborne , Malleable Head, No. C328, Columbia H. & B., 1904-06	33	3x2 $\frac{1}{4}$	6.60	.60
Obtain	1679G	Osborne , Malleable Head, No. C328, Columbia H. & B., 1906 only, Osborne H. & B., 1906 and since	21	3x2 $\frac{3}{8}$	4.80	.60
Obtaining	1679H	Osborne , Malleable Head, No. C328, Columbia H. & B., 1906 only, Osborne H. & B., 1906 and since	25	3x2 $\frac{3}{8}$	5.40	.60
Obtained	1679I	Osborne , Malleable Head, No. C328, Columbia H. & B., 1906 only, Osborne H. & B., 1906 and since	29	3x2 $\frac{3}{8}$	6.00	.60
Obtainable	1679J	Osborne , Malleable Head, No. C328, Columbia H. & B., 1906 only, Osborne H. & B., 1906 and since	33	3x2 $\frac{3}{8}$	6.60	.60
Plagiarism	1683	Plano , Malleable Head, No. L66, Short Register, Jones Lever H. & B., No. 1, 1896-1907; Jones Lever H. & B., No. 2, 1899-07	20	3x2 $\frac{3}{16}$	5.30	.80
Plaid	1683B	Plano , Malleable Head, No. L66, Short Register, Jones Lever H. & B., No. 1, 1896- 1907; Jones Lever H. & B., No. 2, 1899-1907	24	3x2 $\frac{3}{16}$	5.90	.80
Plaint	1683D	Plano , Malleable Head, No. L66, Short Register, Jones Lever H. & B., No. 1, 1896-1907; Jones Lever H. & B., No. 2, 1899- 1907	26	3x2 $\frac{3}{16}$	6.20	.80
Plantable	1683I	Plano , Malleable Head, No. L66, Short Register, Jones Lever H. & B., No. 1, 1896-1907; Jones Lever, H. & B., No. 2, 1899- 1907	28	3x2 $\frac{3}{16}$	6.50	.80
Plantage	1683J	Plano , Malleable Head, No. L66, Jones Lever H. & B., No. 1, 1904-07	32	3x2 $\frac{3}{16}$	7.50	.80
Plantain	1683K	Plano , Malleable Head, No. L66, Long Register, Jones Lever H. & B., No. 2, 1896-98	20	3x2 $\frac{3}{16}$	5.30	.80

REAPER SICKLES—Continued.

Our Reaper Sickles will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

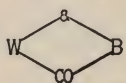
Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Sickles, each	Price of Extra Heads each
Plantation	1683L	Plano , Malleable Head, No. L66, Long Register, Jones Lever H. & B., No. 2, 1896-98	24	3x2 $\frac{3}{16}$	\$5.90	\$0.80
Planted	1683M	Plano , Malleable Head, No. L66, Long Register, Jones Lever H. & B., No. 2, 1896-98	26	3x2 $\frac{3}{16}$	6.20	.80
Planting	1683N	Plano , Malleable Head, No. L66, Long Register, Jones Lever H. & B., No. 2, 1896-98	28	3x2 $\frac{3}{16}$	6.50	.80
Plait	1688E	Plano , Reaper, Malleable Head, No. X87, 1895 and since . .	19	3x2 $\frac{1}{2}$	5.90	.80
Plainant	1689	Plano , Malleable Head, No. A36, Light Steel H. & B., 1891-95	21	3x2 $\frac{3}{16}$	4.90	.80
Plainness	1689A	Plano , Malleable Head, No. A36, Light Steel H. & B., 1891-95	25	3x2 $\frac{3}{16}$	5.50	0.80
Plainsong	1689B	Plano , Malleable Head, No. A36, Light Steel, H. & B., 1891-95	29	3x2 $\frac{3}{16}$	6.20	.80
Plat	1691	Plano , Malleable Head, R520, R. H., Foreign	20	3x2 $\frac{1}{2}$	5.50	.80
Plateau	1691A	Plano , Malleable Head, R520, R. H., Foreign	24	3x2 $\frac{1}{2}$	6.10	.80
Persant	1692A	Plano , Malleable Head, L633, New Plano, 1903-06	20	3x3	5.90	.80
Rebound	1692B	Plano , Malleable Head, L633, New Plano, 1903-06	24	3x3	6.80	.80
Rebuff	1692C	Plano , Malleable Head, L633, New Plano, 1906	28	3x3	7.60	.80
Recent	1693D	Plano (Header), Pin Head, 9297, Jones Steel, 1903 and since	29	4x2 $\frac{3}{4}$	12.50	1.60
Revet	1693E	Plano (Header), Pin Head, 9297, Jones Steel, 1903 and since	35	4x2 $\frac{3}{4}$	14.00	1.60
Reflect	1693F	Plano (Header), Pin Head, 9297, Jones Steel, 1903 and since	41	4x2 $\frac{3}{4}$	15.50	1.60
		Randolph , see Header.				
Wish	1835	Wood , Jr., Sweep-Rake Reaper, Malleable Head, No. 57	20	3x2 $\frac{3}{16}$	4.80	.50
Wisp	1836	Wood , Sr., Sweep-Rake Reaper, Malleable Head, No. 57	18	3x2 $\frac{3}{16}$	4.50	.50
Windle	1842	Wood , Single Apron Harvester, 1888 and since, Malleable Head, H1150	21	3x2 $\frac{3}{16}$	5.10	.50
Wingy	1842A	Wood , Single Apron Harvester, 1888 and since, Malleable Head, H1150	25	3x2 $\frac{3}{16}$	5.55	.50

REAPER SICKLES—Continued.

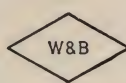
Our Reaper Sickles will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Knives, each	Price of Extra Heads each
Winner	1842C	Wood, Single Apron Harvester, 1888 and since, Malleable Head, H1150	27	3x2 $\frac{3}{16}$	\$6.00	\$0.50
		Wood, see also Minneapolis.				
World	1844	Wood, Malleable Head, No. H2036, Open Rear Har- vester L. H., 1895-97	21	3x2 $\frac{3}{8}$	5.25	.60
Worse	1844A	Wood, Malleable Head, No. H2036, Open Rear Har- vester L. H., 1895-97	25	3x2 $\frac{3}{8}$	5.85	.60
Wort	1844B	Wood, Malleable Head, No. H2036, Open Rear Har- vester, L. H., 1895-97	27	3x2 $\frac{3}{8}$	6.20	.60
Wet	1845	Wood, Malleable Head, No. H2139, New Century Har- vester, 1903 and since	20	3x2 $\frac{3}{8}$	5.10	.60
Wetter	1845A	Wood, Malleable Head, H2139, New Century Harvester, 1903 and since	24	3x2 $\frac{3}{8}$	5.70	.60
Went	1845B	Wood, Malleable Head, H2139, New Century Harvester, 1903 and since	28	3x2 $\frac{3}{8}$	6.30	.60
West	1845C	Wood, Malleable Head, H2139, New Century Harvester, 1903 and since	26	3x2 $\frac{3}{8}$	6.00	.60
Westerly	1645D	Wood, Malleable Head, H2139, Open Rear Harvester, L. H., 1898 and since	21	3x2 $\frac{3}{8}$	5.25	.60
Westering	1845E	Wood, Malleable Head, H2139, Open Rear Harvester, L. H., 1898 and since	25	3x2 $\frac{3}{8}$	5.85	.60
Western	1845F	Wood, Malleable Head, H2139, Open Rear Harvester, L. H., 1898 and since	27	3x2 $\frac{3}{8}$	6.20	.60
Westward	1845G	Wood, Malleable Head, H2139, Open Rear Harvester, L. H., 1898 and since	29	3x2 $\frac{3}{8}$	6.50	.60

All Knives, Sickles, Sections, Guards, Guard Plates, or other Cutting Parts, are guaranteed to fit the machine for which they are intended and to be of the highest quality if they bear either of these



TRADE MARKS



Weed Sickles for Mowers

Our Mower Sickles will fit the below named Machines, and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	No. of Sections	Size of Sections	Price of Sickles, each	Price of Extra Heads each
Bundle	3027	Buckeye (Akron), Wrought Head, No. 864, H. P., Light Mower, 1895-01.....	17	3 x 3 $\frac{3}{16}$	\$5.70	\$1.20
Bunt	3028	Buckeye (Akron), Wrought Head, No. 864, H. P., Light Mower, 1895-1900.....	18	3 x 3 $\frac{3}{16}$	5.90	1.20
Bunter	3029	Buckeye (Akron), Wrought Head, No. 864, H.P., Buckeye Mower, 1895-01.....	20	3 x 3 $\frac{3}{16}$	6.30	1.20
Bunting	3030	Buckeye (Akron), Wrought Head, No. 864, H. P., Buckeye Mower, 1895-01.....	24	3 x 3 $\frac{3}{16}$	7.10	1.20
Convict	3031	Champion , Malleable Head, A415, New Mowers, 1893-95; Draw Cut with Wrot. Guard Bar, 1895 and since.....	18	3 x 3 $\frac{9}{16}$	5.00	.60
Convicted	3032	Champion , Malleable Head, A415, New Mowers, 1893-95; Draw Cut with Wrot. Guard Bar, 1895 and since.....	20	3 x 3 $\frac{9}{16}$	5.40	.60
Convicting	3033	Champion , Malleable Head, A415, New Mowers, 1893-95; Draw Cut with Wrot. Guard Bar, 1895 and since.....	24	3 x 3 $\frac{9}{16}$	6.25	.60
Conviction	3034	Champion , Malleable Head, A415X, Black Top, Haymaker and Draw Cut Mowers, Malleable Guard Bar, 1895 and since....	18	3 x 3 $\frac{3}{16}$	5.00	.60
Convictive	3035	Champion , Malleable Head, A415X, Black Top Haymaker, and Draw Cut Mowers, Malleable Guard Bar, 1895 and since....	20	3 x 3 $\frac{3}{16}$	5.40	.60
Convictively	3036	Champion , Malleable Head, A415X, Black Top, Haymaker Malleable Guard Bar, 1895-01; Draw Cut Malleable Guard Bar, 1895 and since.....	24	3 x 3 $\frac{3}{16}$	6.25	.60
Diadem	3040	Deering , Steel Head, No. F123, Ideal Mower, 1895-04.....	18	3 x 3 $\frac{3}{16}$	5.90	1.20
Diademed	3041	Deering , Steel Head, No. F123, Ideal Mower, 1895-04.....	19	3 x 3 $\frac{3}{16}$	6.10	1.20
Diadrom	3042	Deering , Steel Head, No. F123, Ideal Mower, 1893-04.....	20	3 x 3 $\frac{3}{16}$	6.30	1.20
Diagnosis	3043	Deering , Steel Head, No. F123, Ideal Giant, 1895-04.....	24	3 x 3 $\frac{3}{16}$	7.10	1.20
Diagnostic	3044	Deering , Steel Head, No. F123, Ideal Giant, 1896-04.....	28	3 x 3 $\frac{3}{16}$	7.90	1.20
Diagonal	3045	Deering , Malleable Head, D463, Ideal and Ideal Giant Mowers, 1898 and since; New Ideal, New Ideal Vertical Lift, 1905 and since; New Ideal Giant, 1906 and since.....	18	3 x 3 $\frac{1}{4}$	5.50	.80

WEED SICKLES FOR MOWERS—Continued.

Our Mower Sickles will fit the below named Machines, and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME.	No. of Sections	Size of Sections	Price of Sickles, each	Price of Extra Heads each
Diagram	3046	Deering , Malleable Head, D463, Ideal and Ideal Giant Mowers, 1898 and since; New Ideal, New Ideal Vertical Lift, 1905 and since; New Ideal Giant, 1906 and since.	20	3 x 3¼	\$5.90	\$0.80
Diagraph	3047	Deering , Malleable Head, D463, Ideal and Ideal Giant Mowers, 1898 and since; New Ideal, New Ideal Vertical Lift, 1905 and since; New Ideal Giant, 1906 and since.	24	3 x 3¼	6.70	.80
Dialect	3048	Deering , Malleable Head, D463, Ideal and Ideal Giant Mowers, 1898 and since; New Ideal, New Ideal Vertical Lift, 1905 and since; New Ideal Giant, 1906 and since.	28	3 x 3¼	7.70	.80
Muteness	3062	McCormick , Malleable Head, M139, No. 4 Mower, 1888-97; Big 4, 1889-97; New 4 and Vertical Lift, 1896 and since.	18	3 x 3 ³ / ₁₆	5.50	.80
Mutilate	3063	McCormick , Malleable Head, M139, No. 4 Mower, 1888-97; Big 4, 1889-97; New 4 and Vertical Lift, 1896 and since; New Big 4, 1898 and since.	20	3 x 3 ³ / ₁₆	5.90	.80
Mutilated	3064	McCormick , Malleable Head, M139, Big 4 Mower, 1889-97; New Big 4, 1898 and since.	24	3 x 3 ³ / ₁₆	6.70	.80
Mutilating	3065	McCormick , Malleable Head, M139, Big 4 Mower, 1889-97; New Big 4, 1898 and since.	28	3 x 3 ³ / ₁₆	7.50	.80
Ordinal	3071	Osborne , Columbia Mower, Malle- able Head, K284, C Mower, 1896-01; D Mower, 1898-01. . .	18	3 x 3HP	4.70	.60
Ordinant	3072	Osborne , Columbia Mower, Malle- able Head, K284, C Mower, 1896-01; D Mower, 1898-01. . .	20	3 x 3HP	5.10	.60
Ordinary	3073	Osborne , Columbia Mower, Malle- able Head, K284, D Mower, 1898-01.	24	3 x 3HP	5.90	.60
Portal	3076	Plano , Malleable Ball Head, J94, with Thick Bar and Black Top Sections, Jones Chain Drive, 1898-07.	18	3 x 3½	5.50	.80
Portable	3077	Plano , Malleable Ball Head, J94, with Thick Bar and Black Top Sections, Jones Chain Drive, 1898-07.	20	3 x 3½	5.90	.80
Portage	3078	Plano , Malleable Ball Head, J94, with Thick Bar and Black Top Sections, Jones Chain Drive, 1898-07.	24	3 x 3½	6.80	.80

Mower and Reaper

Smooth Sections

Our Mower and Reaper Smooth Sections will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.



Our Smooth or Grass Sections are made from the best section steel, manufactured especially to our order; and they are warranted and guaranteed in every particular. Our methods of tempering, adopted after a long series of trials and experiments, produce the best and most lasting cutting edge that it is possible to obtain. By our peculiar process, we retain all the strength and tenacity of the original steel, while, at the same time, we produce that fine and elastic edge which is at once so difficult to obtain, and so indispensable to the satisfactory working of the complete mower.

For Diagrams of Sections see Pages 72 to 84

Telegraph Cipher	No.	NAME	Size	Price Per 100
Affright	2002	Acme	3x3 $\frac{1}{4}$	\$14.75
Argument	2002A	Acme, Flax, R. H., Small Binder, 1899-1900; L. H. Small Binder, 1895-1900; Hodges Queen Binder, L. H., 1901 and since; R. H., 1903 and since; King Harvester, 1900 and since.	3x2	12.50
Azoto	2002B	Acme, Mower, 1896-97; Hercules Mower, 1898-1900; Pony Mower, 1900 and since; New Hodges Mower, 1901 and since; Giant Mower, 1903 and since.	3x3 $\frac{3}{16}$	15.00
Ague	2005A	American Grass Twine Co., "Minnie" Mower, 1902 and since	3x3 $\frac{1}{4}$	14.75
Ahead	2005B	American Grass Twine Co.	3 $\frac{1}{2}$ x3 $\frac{1}{4}$	15.25
Alas	2006	American Harvester "Co., Automatic Mower	3x3 $\frac{5}{16}$	15.25
Alphabet	2010	Ann Arbor Mower	2 $\frac{1}{2}$ x3 $\frac{1}{4}$	13.50
Alphos	2010A	Argentine Mower	3x3 $\frac{7}{16}$	15.50
Alpine	2010B	Argentine Mower	3x3 $\frac{1}{4}$	15.00
Alcove	2015	Adriance (Buckeye), all Mowers and Adriance Reaper (Flax).	3x3 $\frac{1}{4}$	14.75
Buggy	2041	Bradley's Harvester and Mower	3x3 $\frac{1}{4}$	14.75
Builder	2043	Buckeye, Sr. (Akron and Canton).	4x4 $\frac{1}{4}$	20.00
Bulb	2044	Buckeye (Akron and Canton).	3 $\frac{1}{2}$ x4 $\frac{1}{4}$	18.25
Bulbous	2045	Buckeye, Flax (Akron and Canton).	3x2 $\frac{1}{2}$	13.50
Bulk	2047	Buckeye, Flax (Akron and Canton).	3x3	14.50
Bullet	2049	Buckeye (Akron), Light Mower and Buckeye Mower, 1901 and since; New Buckeye Mower, 1876-87.	3x3 $\frac{9}{16}$	15.75
Bulletin	2050	Buckeye (Canton).	3x3 $\frac{1}{2}$	15.50
Basty	2050A	Buckeye (Akron), Light Mower, 1892-94; Buckeye Mower, 1888-94; New Buckeye Mower, 1886 and since; Center Draft Mower, 1898 and since; Frameless Binder, (Flax), 1890 and since; Banner Binder (Flax), 1888 and since.	3x3 $\frac{1}{2}$ L.P.	15.25

MOWER AND REAPER SMOOTH SECTIONS—Continued.

Our Mower and Reaper Smooth Sections will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	Size	Price Per 100
Bub	2050AB	Buckeye (Akron), Light Mower, 1895-1900; Buckeye Mower, 1895-1901; Buckeye Reel Rake, 1898 and since.	3x3 $\frac{3}{8}$ H.P.	\$15.25
Baney	2050B	Buckeye (Akron), Table Rake Flax, 1876 and after.	3x3	14.50
Balty	2050C	Buckeye (Akron), Flax, Wood Frame Harvester, 1879 and since.	3x3	14.50
Bullion	2051	Buckeye , No. 1 (New York)	3 $\frac{1}{2}$ x4 $\frac{1}{16}$	18.25
Bullock	2052	Buckeye , No. 2 (New York)	3 $\frac{1}{2}$ x3 $\frac{1}{8}$	17.75
Bully	2053	Buckeye , No. 2 (New York)	3 $\frac{1}{2}$ x3 $\frac{1}{8}$	17.75
Barky	2054A	Buckeye (Worcester), all Mowers.	3x3 $\frac{1}{8}$	14.75
Bendy	2054C	Buckeye (Lewisburg, Pa.)	3x3 $\frac{1}{8}$	14.75
Bultel	2055	Buckeye , Reaper (New York)	3 $\frac{1}{2}$ x3 $\frac{3}{8}$	16.00
Bulwark	2056	Buckeye (Fitchburg)	3x3 $\frac{1}{16}$	16.00
Bump	2057	Buckeye (St. Albans)	3x3 $\frac{1}{8}$	15.75
Bumper	2058	Buckeye (Dansville, N. Y.)	3x3 $\frac{1}{8}$	15.50
Burletta	2072	Bates , Harvester, Reaper	3x3 $\frac{1}{8}$	14.75
Beston	2073	Benicia , Mower	3x3 $\frac{1}{8}$	14.75
Chalk	2098	Cayuga Chief , Jr. (Auburn)	3 $\frac{1}{2}$ x3 $\frac{1}{16}$	16.75
Chamois	2101	Champion , Nos. 2, 3 and 4	3 $\frac{1}{2}$ x3 $\frac{1}{4}$	16.50
Champagne	2102	Champion , No. 4, 1876-77	3x3 $\frac{1}{4}$	15.00
Chancel	2103	Champion , No. 4 Combined Reaper, Light Mowers, Single Reapers and Light Reapers, 1878 and since; New Mowers, 1891-92	3x3 $\frac{1}{16}$	15.25
Chandry	2104	Champion , Hay Maker and Draw Cut Mowers, with Wrought Guard, 1893 and since	3x3 $\frac{1}{16}$	15.75
Charon	2104A	Champion (H273), Hay Maker and Draw Cut Mowers, with Malleable Guard, 1895 and since; O. H. Mowers, 1901 and since; Folding Bar Reaper (Flax), 1903 and since; New Champion Binder, 1904	3x3 $\frac{3}{16}$	15.00
Chart	2104AA	Champion (H489), Extra Heavy, Hay Maker Mower, 1899 and since	3x3 $\frac{3}{16}$	15.75
Chartered	2104AB	Champion (MA333), Big and Vertical Lift Draw Cut and O. H. Draw Cut Mowers, 1906 and since	3x3 $\frac{3}{16}$	15.00
Charpie	2104B	Champion , Folding Bar Reaper (Flax), 1899-1902	3x3	14.50
Change	2105	Champion , New Champion and Steel Mowers, 1878-90	3x3 $\frac{5}{16}$	15.25
Chaperon	2105A	Champion , Binder, 1881-82	3x2 $\frac{1}{8}$	14.25
Chronic	2105B	Champion , Binder, Cut out in Center	3x2 $\frac{1}{4}$	14.25
Churl	2105C	Champion , Binder, Cut out in Center	3x3 $\frac{1}{8}$	14.75
Chuck	2105D	Champion Harvester, Notched on Back, Champion Binders, 1882 and after; Champion Force Feed, 1894 and since	3x3 $\frac{1}{4}$	14.75
Chap	2108A	Climax	3x3 $\frac{1}{16}$	15.25
Charcoal	2115	Clipper , 1867 and since	3x3 $\frac{3}{8}$	15.25
Charily	2115B	Clipper Mower (Brockport)	3x3 $\frac{1}{8}$	14.75
Charity	2117	Cycloid or Johnston	3x3 $\frac{1}{4}$	14.75
Crawl	2118	Crawford	3x2 $\frac{1}{8}$	14.25
Chart	2119	Crawford	3x3	14.50
Chary	2125	Crown Mower (Janesville)	3x3 $\frac{1}{4}$	15.00
Chasten	2126	Crown Reaper (Janesville)	3x3 $\frac{1}{8}$	14.75

MOWER AND REAPER SMOOTH SECTIONS—Continued.

Our Mower and Reaper Smooth Sections will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	Size	Price Per 100
Chud	2127	Crown Mower, Old (Janesville)	3x3 $\frac{1}{4}$	\$15.00
Chuff	2128	Crown Mower, New (Janesville)	3x3 $\frac{1}{4}$	15.00
Decoy	2141	Dodge	3x3 $\frac{1}{8}$	15.75
Decree	2142	Dorsey	3x3 $\frac{1}{4}$	15.00
Defect	2145	Danville Mower and Reaper	2 $\frac{1}{2}$ x3 $\frac{1}{8}$	13.25
Defence	2146	Deering, Warrior Mower, 1877-87; Deering's Mower, 1882-85	2 $\frac{1}{4}$ x3	12.50
Detour	2147	Deering, New Deering, O. H. and F. C. Giant Mowers, 1886-88	2 $\frac{1}{4}$ x3	12.50
Detract	2147A	Deering, New Deering, O. H. and F. C. Giant Mowers, 1886-88; Deering Light Reaper Regular, 1882-97; Folding Reaper, 1886-97; Ideal Reaper, 1894-99	3x3 $\frac{1}{4}$	14.75
Detrude	2148	Deering, New Deering, O. H. and F. C. Giant Mowers, 1889-97	2 $\frac{1}{4}$ x3 $\frac{1}{8}$	12.75
Return	2148A	Deering, New Deering, O. H. and F. C. Giant Mowers, 1889-97	3x3 $\frac{1}{4}$	15.00
Defalk	2149	Deering, New Deering, O. H. and F. C. Giant Mowers, 1889-97; Ideal 1893 and since; Ideal Giant, 1895 and since; Ideal O. H., 1896 and since; Ideal Vertical Lift, 1902-06; Ideal O. H. Vertical Lift, 1903 and since; New Ideal and New Ideal Vertical Lift, 1905 and since; New Ideal Giant, 1906 and since	3x3 $\frac{3}{16}$	15.00
Defame	2149A	Deering, Flax, all Harvesters	3 $\frac{1}{8}$ x2 $\frac{5}{16}$	13.25
Defamous	2149B	Deering	3 $\frac{1}{8}$ x3	15.00
Destiny	2149C	Deering, with E449 Head, 1891 only	3 $\frac{1}{8}$ x2 $\frac{7}{16}$	13.50
Dainty	2151	Dain Mower, 1890	3x3 $\frac{1}{8}$	14.75
Dropsey	2151A	Dain Mower, 1895 and since	3x3 $\frac{1}{16}$	15.00
Excuse	2155	Eagle, Young	3x3 $\frac{1}{8}$	14.75
Execute	2156	Eagle, Young, 1873	3x3 $\frac{1}{8}$	15.25
Exemplar	2157	Eagle, Anson Wood's	3x3	14.50
Exercent	2157A	Ellwood, 1896	3x3 $\frac{5}{16}$	15.25
Exhume	2164A	Empire (Seiberling), 1876 and since	3x3 $\frac{3}{8}$	15.25
Exigent	2164B	Empire, Flax (Seiberling), 1881	3x2 $\frac{3}{8}$	13.75
Empy	2164C	Empire, Single Wheel Reaper	3 $\frac{1}{2}$ x3	16.00
Estel	2168A	Esterly Mower	3x3 $\frac{3}{16}$	15.00
Expanse	2170	Eureka	3x3 $\frac{1}{4}$	15.50
Expect	2171	Eureka	3x2 $\frac{3}{8}$	14.25
Expectant	2172	Eureka	3x2 $\frac{1}{4}$	14.00
Eutaxy	2172A	Eureka	3x3 $\frac{1}{8}$	14.75
Expedition	2173	Emerson, C. S., Standard Mowers, 1879-99	3x3 $\frac{1}{4}$	14.75
Expede	2173A	Emerson, Standard Mowers, 1899-1900	2 $\frac{1}{2}$ x3 $\frac{1}{8}$	13.75
Expedite	2173B	Emerson, B. H., Black Top, Standard Mowers, 1900 and since	3x3 $\frac{1}{4}$	14.75
Gallow	2214	Granite State, 1869 and previous	3x2 $\frac{1}{8}$	14.25
Gambler	2215	Granite State, Small Hole, 1870-71	3x3 $\frac{1}{16}$	14.75
Game	2216	Granite State, Large Hole, 1872 and since	3x3 $\frac{1}{16}$	14.75
Granger	2216B	Granite State, Large Hole	2 $\frac{1}{4}$ x3 $\frac{1}{8}$	12.75
Gammon	2217	Granite	3x3 $\frac{1}{4}$	14.75
Hillock	2224B	Hallenbeck	3 $\frac{1}{2}$ x3 $\frac{1}{4}$	15.75
Hilt	2224C	Hallenbeck	2 $\frac{1}{2}$ x2 $\frac{1}{4}$	13.00
Hit	2228A	Hopkin's Mower	3x3 $\frac{5}{16}$	15.25

MOWER AND REAPER SMOOTH SECTIONS—Continued.

Our Mower and Reaper Smooth Sections will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	Size	Price Per 100
Hitch	2229	Hubbard, 1864	3x2 $\frac{1}{8}$	\$14.00
Hive	2230	Hubbard, 1865	3x2 $\frac{7}{8}$	14.25
Hoard	2231	Hubbard	3x3	14.50
Hoarse	2232	Hubbard	3x3 $\frac{1}{4}$	15.00
Holiday	2243	Howe, Mower and Reaper (Albion). . .	3x3 $\frac{1}{8}$	14.75
Holiness	2246	Harvester Queen, 1895	3x2	12.50
Iron	2259	Imperial	3x3 $\frac{1}{8}$	14.75
Join	2265	Johnston or Cycloid, Reg. Continental Reaper, 1878-93; Imp. Continental Reaper, 1891 and since; W. I. Harvester, 1875 and since; No. 5 Mower, 1879-97; No. 6 Mower, 1880-95; No. 8 Mower, 1890-95; Mayflower Gear Mower, 1887-95 . .	3x3 $\frac{1}{8}$	14.75
Jocund	2265A	Johnston, Black Top, Mayflower Gear and Nos. 6, 8 and 9 Mowers, 1896 and since; Mayflower Chain Mower, 1898 and since; No. 10 Mower, 1901 and since.	3x3 $\frac{3}{8}$	15.25
Joyless	2266	Johnston, Continental Binder, 1887-96; Bonnie Binder, 1895-99.	3x2 $\frac{1}{2}$	13.50
Jubilant	2267	Johnston, Bonnie Binder, 1896-99; L. H. Continental Binder, 1898-99	3x2 $\frac{1}{16}$ L.P.	14.50
Jubilation	2267A	Johnston, (L786), Bonnie and L. H. Continental Binders, 1900 and since; R. H. Continental Binder, 1901 and since.	3x2 $\frac{15}{16}$ H.P.	14.50
Kirk	2268A	Keystone Mower, 1904 and since.	3x3 $\frac{3}{16}$	15.00
Kiss	2268B	Keystone.	3x3 $\frac{3}{8}$	15.25
Kill	2280	Keystone (Flax), Binder, 1905 and since.	3x2 $\frac{7}{16}$	13.50
Koba	2290	Knowlton Mower.	3x3 $\frac{5}{16}$	15.25
Mirror	2306	McCormick.	3x3 $\frac{1}{8}$	14.75
Mirth	2307	McCormick, Iron Mower, 1879-87.	3x3 $\frac{1}{16}$	14.75
Mischief	2308	McCormick, Harvester, Flax.	3x2 $\frac{1}{8}$	12.75
Miscite	2308A	McCormick, Imperial Reaper, Daisy Reaper, 1882-86; No. 2 Daisy, 1886-90; Folding Daisy, 1890- 1905; New Folding Daisy 1905 and since; Bindlochine, 1893-95. .	3x3	14.50
Misclaim	2309	McCormick, Flax.	3x2 $\frac{1}{2}$	13.50
Mursen	2309A	McCormick, No. 2 Mower, 1884-87; No. 3 Mower, 1886-87; No. 4 Mower, 1887.	3x3 $\frac{1}{16}$	14.75
Melder	2309B	McCormick, C. S., No. 3 Mower, 1888- 93; No. 4 Mower, 1888-97; Big 4 Mower, 1889-97; Little 4 Mower, 1889-1901; New 4 and Vertical Lift Mowers, 1896 and since; New Big 4 Mower, 1898 and since; Little Vertical Mower, 1902 and since.	3x3 $\frac{3}{16}$	15.00
Melking	2309C	McCormick, Flax, Steel Harvester, 1884-87; Pipe Frame, 1886-1901; R. H. Open Elevator, 1895-1901; New Open Elevator, R. H. and L. H., 1901 and since.	3x2 $\frac{7}{16}$	13.50

MOWER AND REAPER SMOOTH SECTIONS—Continued.

Our Mower and Reaper Smooth Sections will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	Size	Price Per 100
Melee	2309D	McCormick, B. H., New 4 and Vertical Lift Mowers, 1896 and since; New Big 4 Mowers, 1898 and since; Little Vertical Mower, 1902 and since.	3x3 $\frac{3}{16}$	\$15.00
Mixture	2316	Manny, J. P.	3x3 $\frac{3}{8}$	15.25
Mulky	2317	Manny, J. P., Mower, 1889.	3x3 $\frac{5}{16}$	15.25
Modus	2322	Marsh Harvester, Flax, Boot Jack.	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	13.00
Moff	2322A	Marsh Harvester, Flax, Solid.	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	13.00
Mohawk	2322B	Marsh Harvester, Flax, (Deering), 1883.	3 $\frac{1}{2}$ x2 $\frac{7}{16}$	13.75
Mohur	2322C	Minneapolis Harvester, Flax, 1883.	3 $\frac{1}{2}$ x2 $\frac{7}{16}$	13.75
Mindy	2322D	Minneapolis Mower.	3x3 $\frac{1}{4}$	15.00
Mogul	2323	Meadow King.	3x3	14.50
Mohair	2323B	Meadow King.	3 $\frac{1}{32}$ x3	14.50
Moment	2326	Meadow Lark, Mower.	3x2 $\frac{7}{8}$	14.25
Monad	2327	Meadow Lark, Reaper.	3x3 $\frac{1}{4}$	15.00
Money	2328	Meadow Lark, Mower (Minneapolis).	3x3 $\frac{1}{4}$	14.75
Monk	2329	Meadow Lark, Mower (Minneapolis).	3x3 $\frac{7}{32}$	15.00
Mantey	2331	Milwaukee, All Mowers, except Milwaukee Gear Drive.	3x3 $\frac{1}{4}$	14.75
Multy	2331B	Milwaukee Binder.	3 $\frac{1}{2}$ x2 $\frac{7}{16}$	13.75
Muston	2331C	Milwaukee (Flax), Steel Jr. Harvester No. 10, 1889 and since.	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	13.75
Ocean	2347	Osborne Mower.	3 $\frac{3}{16}$ x3 $\frac{1}{2}$	16.25
Ochre	2348	Osborne, Flax, Section for all Harvesters and Reapers, also No. 4 Mower, 1885-92.	3x3 L.P.	14.50
Odize	2349A	Osborne, Nos. 3, 4 and Big 4 Mowers, 1893-98; "B" Mower, 1897-1905; "C" Mower, 1896-1905; "D" Mower, 1898-1905.	3x3H.P.	14.50
Occult	2349C	Osborne, Nos. 2 and 3 Mowers, 1903 and since; No. 1 Mower, 1904 and since.	3x3 $\frac{3}{16}$	15.00
Odor	2350	Onondaga Chief.	3x2 $\frac{1}{4}$	14.00
Offal	2351	Onondaga Chief.	3x3	14.50
Pollute	2352	Polo, (Russell).	3x3 $\frac{1}{4}$	14.75
Pasha	2357A	Perry Mower.	3x3 $\frac{1}{4}$	14.75
Pasquill	2357B	Perry Binder.	3x2 $\frac{1}{2}$	13.50
Pandit	2360	Peerless Mower.	3x3	14.50
Parture	2361	Peerless Reaper.	3x2 $\frac{1}{4}$	14.25
Parvenue	2362	Plano, "Warrior" Mower.	2 $\frac{1}{2}$ x2 $\frac{1}{4}$	12.75
Parvis	2362A	Plano, Jones Chain Mower, 1889-1907; Chain Jr., 1898-1907; Vertical and Big Vertical, 1901-05; Vertical Jr., 1902-05.	3x3 $\frac{1}{4}$	14.75
Paper	2362B	Plano (D1140), Vertical, Big Vertical and Vertical Jr., Mowers 1906 and since.	3x3 $\frac{1}{4}$	15.00
Pagan	2267B	Plano, Flax, New Plano Binder, 1903-06.	3x3	14.50
Pest	2362E	Plano, Flax.	3x2 $\frac{3}{16}$	13.00
Pester	2362F	Plano, Flax, Light Steel Binder, 1891-95.	3x2 $\frac{3}{8}$	13.75

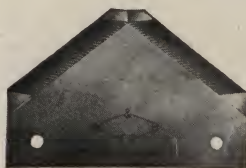
MOWER AND REAPER SMOOTH SECTIONS—Continued.

Our Mower and Reaper Smooth Sections will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	Size	Price Per 100
Placer	2362G	Plano, Flax, Jones Lever Binder No. 1, 1895-1907; Jones Lever Binder No. 2, 1896-1907.....	3x2 $\frac{7}{16}$	\$13.50
Plastron	2362J	Plano, 1899.....	3x2 $\frac{1}{2}$	13.50
Quay	2367A	Quaker City (Wayne Agricultural Co.), 1883.....	3x3 $\frac{1}{2}$	15.00
Regret	2373	Rawson.....	3x3 $\frac{1}{8}$	14.75
Reign	2374	Rawson.....	3x3	14.50
Relate	2375	Rawson.....	2 $\frac{1}{2}$ x3 $\frac{1}{4}$	13.25
Repack	2379A	Royce.....	3x3 $\frac{1}{2}$	14.75
Repair	2380	Royce.....	3x3 $\frac{1}{16}$	14.75
Repast	2381	Royce.....	3x2 $\frac{1}{2}$	14.25
Rhenish	2381A	Royce, Reaper, (Sweet, F. & Co.)....	2 $\frac{1}{2}$ x3 $\frac{1}{2}$	13.25
Rhetor	2381B	Red, White and Blue Mower.....	3x3 $\frac{1}{2}$	14.75
Reptile	2384	Russell.....	3x3 $\frac{1}{2}$	15.00
Respite	2385	Russell.....	3x3	14.50
Requite	2386	Russell, 1871.....	3x3 $\frac{3}{8}$	15.75
Reserve	2388	Russell (New York).....	3x3 $\frac{3}{8}$	15.75
Rusty	2388C	Russell, Polo.....	3x3 $\frac{3}{8}$	14.75
Scaffold	2400	Sprague, One-Horse.....	3x3 $\frac{1}{2}$	15.00
Scalp	2401	Sprague, Two-Horse.....	3x3 $\frac{1}{2}$	15.50
Scruple	2413	Sandwich.....	3 $\frac{1}{2}$ x3	16.00
.....	.....	Sandwich, (See also Argentine).....	.....	.....
Seuffle	2414	Seymour.....	3x3 $\frac{1}{4}$	14.75
Shindle	2415	Steele Mower.....	3x3 $\frac{1}{2}$	14.75
Shinner	2415A	Steele Mower, 1889, Chain Drive.....	3x3 $\frac{3}{8}$	15.75
Tariff	2430	Triumph, No. 2.....	3x3 $\frac{1}{4}$	14.75
Tempest	2432	Tiger Mower.....	3x3 $\frac{1}{4}$	14.75
Tallow	2435	Thompson Mower.....	3x3 $\frac{5}{16}$	15.25
Verge	2450	Victor.....	3x3 $\frac{5}{16}$	15.25
Vermin	2451	Victor (Cortland).....	3x2 $\frac{1}{16}$	14.50
Vidette	2452	Victor B. Mower, (Oakland, Cal.).....	3x2 $\frac{1}{16}$	14.50
Viewer	2453	Victor C. Mower, (Oakland, Cal.)....	3x3	14.50
Willow	2460	Warrior.....	2 $\frac{1}{2}$ x2 $\frac{1}{2}$	12.75
Wince	2461	Warrior.....	2 $\frac{1}{2}$ x3	12.50
Wing	2462	Williams.....	3x2 $\frac{1}{2}$	14.25
Wisdom	2463	Williams.....	3x3 $\frac{1}{4}$	14.75
Witch	2464	Wheeler, Nos. 5 and 6.....	3 $\frac{3}{16}$ x3 $\frac{1}{2}$	16.25
Wolf	2468	Wood, Tub. Steel Mower, with P Guard; Enc. Gear Reaper 1894 and since; Open Rear and New Century Harvester, Flax.....	3x2 $\frac{3}{8}$	13.00
Wonder	2469	Wood, Flax, Chain Rake Reaper, 1870 and since.....	3 $\frac{1}{2}$ x2 $\frac{1}{4}$	14.50
Word	2470	Wood, Flax, Chain Rake Reaper, prior to 1870.....	4x2 $\frac{3}{8}$	15.75
Worm	2471	Wood, New Mower, Giant Mower, Tubular Steel Mowers, with No. 2355 and "A" Guards; and all Enclosed Gear Mowers.....	3x3 $\frac{1}{2}$	14.75
Worrit	2473	Wood, Flax, Harvester, 1878-93; En- closed Gear Reaper to 1894; Sr. and Jr. Sweep Rake Reapers.....	3x2 $\frac{3}{16}$	13.00
Waldy	2479	Whiteley, Mower, Low Punch.....	3x3 $\frac{1}{16}$	15.25
Watering	2479B	Whiteley (Muncie), Vertical Mower...	3x3	14.50
Whiteweed	2479A	Whiteley, Tricycle Mower, High Punch	3x3 $\frac{1}{16}$	15.25
Werder	2481	Winona, Mower.....	3x3 $\frac{1}{4}$	14.75
Wiltor	2482	Winona, Harvester.....	3 $\frac{1}{8}$ x2 $\frac{1}{16}$	13.75

Reaper Sickle Sections

Our Reaper Sickle Sections will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.



Our patent serrated Sickle Section is acknowledged to be the best that has ever been made and its matchless cutting qualities and superiority over all others has been approved by all the leading manufacturers of reapers and binders, and by the best farmers throughout the land. It is made of the best quality of sickle steel, and warranted in every particular.

For Diagrams of Sections see Pages 72 to 84

Telegraph Cipher	No.	NAME	Size	Price Per 100
Angel	2642	Acme Harvester, 1895-1900	3x2	\$13.00
Anger	2642A	Acme, Hodges Queen Binder, L. H., 1901 and since; R. H., 1902 and since	3x2 $\frac{1}{2}$	13.50
Angered	2642B	American Grass Twine, "Minnie" Har- vester, 1901 and since	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	14.25
Buskin	2643	Buckeye, Adriance Binder	3x2 $\frac{1}{2}$	14.00
Bust	2644	Buckeye, since 1869	3x2 $\frac{1}{2}$	14.50
Bustard	2644B	Buckeye, Head Section (Canton).	3x3	15.00
Butcher	2651	Buckeye (Canton)	3x2 $\frac{1}{2}$	14.25
Butler	2651A	Buckeye, Harvester and Binder (Akron and Canton).	3x2 $\frac{1}{2}$	14.00
Buttock	2655	Buckeye, New Reaper (New York) ...	3x2 $\frac{1}{2}$	14.50
Bordy	2658	Buckeye (Akron), Front Pitman	3x2 $\frac{1}{2}$	14.00
Bonty	2658A	Buckeye (Akron), "Banner" Binder, 1890 and since	3x2 $\frac{1}{2}$	14.00
Belky	2658B	Buckeye (Akron), "Crane or Frame- less" Binder, 1891-1901	3x2 $\frac{1}{2}$	14.00
Bell	2658C	Buckeye (Akron), Reel Rake, 1898 and since.	3x2 $\frac{1}{2}$	14.50
Believe	2658D	Buckeye (Akron), Weed Section	3x2 $\frac{1}{2}$	14.50
Bysoid	2672	Bradley's N. 2 Harvester	3x2 $\frac{1}{2}$	14.50
Bylaw	2675	Bates Harvester	3x2 $\frac{1}{2}$	14.00
Chase	2682	Cayuga Chief (Auburn).	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	15.50
Chaw	2691	Champion, Nos. 2, 3 and 4.	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	15.50
Cheat	2692	Champion, Single Reaper, 1878 and since; Folding Bar Reaper, 1899- 1902	3x2 $\frac{1}{2}$	14.50
Chemise	2693	Champion, Binder, 1881-82	3x2 $\frac{1}{16}$	13.75
Chump	2693A	Champion, Binder, cut out in Center ...	3x2 $\frac{1}{16}$	13.75
Chunky	2693B	Champion, Notched on Back, Cham- pion H. and B., 1882 and since; Force Feed H. and B., 1894 and since	3x2 $\frac{1}{2}$	14.25
Chased	2693D	Champion (G241), Folding Bar Reaper, 1903 and since; New Champion Binder, 1904 and since	3x3	15.00
Cheriff	2694	Crown Reaper (Janesville).	3x2 $\frac{1}{2}$	14.50
Chemist	2697	Clipper	3x2 $\frac{1}{2}$	14.50
Chest	2701	Cycloid or Johnston	3x2 $\frac{1}{2}$	13.75
Chide	2702	Cycloid or Johnston	3x2 $\frac{1}{2}$	14.00
Devast	2715	Deering, all Harvesters, except Pony, 1893.	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	13.50
Devex	2715A	Deering, Light Reaper Reg., 1882-97; Light Reaper Folding, 1886-97; Ideal Reaper, 1894-99.	3x2 $\frac{1}{2}$	14.50
Default	2715B	Deering, Pony Binder, 1893.	3 $\frac{1}{2}$ x2 $\frac{1}{16}$	14.00
Defecate	2715C	Deering (Foreign)	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	14.25

REAPER SICKLE SECTIONS—Continued.

Our Reaper Sickle Sections will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	Size	Price Per 100
Express	2726	Empire (Seiberling's).....	3x2 $\frac{5}{8}$	\$14.25
Exterior	2726E	Empire Binder, 1881.....	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	13.75
Extern	2727A	Emerson Standard, No. 2.....	3x2 $\frac{3}{4}$	14.50
Extine	2729	Esterly, Harvester and Binder.....	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	13.75
Hoise	2759	Harvester Queen, 1895.....	3x2	13.00
Holland	2760	Header (Case, Hodges & Weyhrich)....	4x2 $\frac{3}{16}$	15.50
Holm	2761	Header (Weyhrich & Co.).....	4x2 $\frac{1}{16}$	17.00
Holly	2762	Header, 1882 (Weyhrich & Co.).....	3x2 $\frac{1}{2}$	14.00
Hollow	2762A	Header, 1882 (Benicia Agricultural Works).....	4x2 $\frac{3}{16}$	15.50
Holostome	2762AA	Header (Benicia).....	3x2 $\frac{3}{8}$ CSB	14.50
Home	2762B	Header (Stockton, Chief).....	4x2 $\frac{3}{8}$	17.50
Huer	2762C	Header (Case), Bottom of Rod.....	4x2 $\frac{3}{16}$	15.50
Huff	2762D	Header (Case), Top of Rod.....	4x2 $\frac{3}{16}$	15.50
Huggle	2762E	Header (Hodges), Bottom of Rod.....	4x2 $\frac{3}{16}$	15.50
Huke	2762F	Header (Hodges), Top of Rod.....	4x2 $\frac{3}{16}$	15.50
Hulch	2762G	Header (Hodges), Top of Rod.....	4x2 $\frac{3}{8}$	17.50
Huller	2762H	Header (Benicia), Top of Rod.....	4x2 $\frac{3}{16}$	15.50
Hulver	2762I	Header (Benicia), Improved.....	3x2 $\frac{1}{4}$	14.50
Human	2762J	Header (Weyhrich), Top of Rod.....	4x2 $\frac{1}{2}$	16.00
Humble	2762K	Header (Randolph).....	3x2	13.00
Hearth	2762L	Header (Acme Pony).....	1 $\frac{1}{2}$ x1 $\frac{7}{16}$	8.25
Heaven	2762M	Header (Johnston).....	4x2 $\frac{3}{16}$	15.50
Heat	2762N	Header 1898 (Plano).....	4x2	15.00
Hapless	2762O	Header (McCormick), 1900.....	4x2 $\frac{3}{16}$	15.00
Haply	2762P	Header (McCormick, Header Binder), 1902 and since.....	3x2 $\frac{1}{2}$	14.00
Happen	2762Q	Header (McCormick), 1901 and since..	4x2 $\frac{1}{16}$	17.00
Happily	2762R	Header (Deering), Push Header, 1902- 06.....	3 $\frac{1}{2}$ x2 $\frac{3}{16}$	13.75
Happiness	2762S	Header (Deering), Push Header, 1905- 06 (Spokane and Portland).....	4 $\frac{5}{8}$ x2 $\frac{5}{32}$	20.00
Heathery	2764	Heath Barrett Hay Knife.....	3x3 $\frac{7}{8}$	16.75
Homer	2767	Hubbard (Rochester).....	3x2 $\frac{1}{2}$	14.00
Hominy	2771	Howe Reaper (Albion).....	3x2 $\frac{3}{4}$	14.50
Jowl	2782	Johnston, Combined.....	3x2 $\frac{3}{8}$	13.75
Judge	2783	Johnston (110), W. I. Harvester, 1875 and after; Reg. Continental Reap- er, 1878-93; Imp. Continental Reaper, 1891 and since.....	3x2 $\frac{1}{2}$	14.00
Jubilee	2784	Johnston (62A), all Continental Bind- ers, 1887-96; Bonnie Binders, 1895	3x2 $\frac{1}{8}$	13.25
Junior	2784A	Johnston (L515), Bonnie Binder, 1896- 99; New Continental Binder, 1898- 99.....	3x2 $\frac{3}{8}$ L.P.	13.75
Juniper	2784B	Johnston (L787), Bonnie and New Con- tinental Binders, 1900 and since..	3x2 $\frac{3}{8}$ H.P.	13.75
Lord	2786	Keystone.....	4x2 $\frac{1}{4}$	13.25
Kid	2786A	Keystone Binder, 1905 and since.....	3x2 $\frac{1}{4}$	13.25
Morrow	2840	Marsh Harvester (Deering).....	3 $\frac{1}{2}$ x2 $\frac{1}{4}$	13.50
Mortise	2843	Meadow Lark.....	3x2 $\frac{1}{2}$	14.00
Mote	2845	Minneapolis or Dewey Harvester.....	3 $\frac{1}{2}$ x2 $\frac{1}{4}$	13.50
Motet	2846	Minneapolis Binder.....	3 $\frac{1}{2}$ x2 $\frac{1}{4}$	13.50
Mostie	2847	Minneapolis Binder, 1883.....	3 $\frac{1}{2}$ x2 $\frac{7}{16}$	14.25
Minley	2847A	Minneapolis, Harvester and Binder, Chain and Gear Drive.....	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	14.25
Mutton	2847B	Milwaukee, No. 12, Harvester L. H., 1901 and 1906 and since (state year or send diagram).....	3x3 $\frac{1}{2}$	15.25

REAPER SICKLE SECTIONS—Continued.

Our Reaper Sickle Sections will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	No.	NAME	Size	Price Per 100
Muzien	2847C	Milwaukee, No. 12, Harvester, L. H., 1902-05.....	3 $\frac{3}{16}$ x 3	\$15.50
Mundy	2847F	Milwaukee Harvester.....	3 $\frac{3}{8}$ x 2 $\frac{1}{4}$	13.75
Molter	2847G	Milwaukee, Steel Junior H. and B., No. 10, 1889 and since.....	3 $\frac{1}{8}$ x 2 $\frac{5}{16}$	14.00
Mould	2851	McCormick, Advance.....	3 x 3 $\frac{1}{16}$	15.25
Mount	2852	McCormick, Advance.....	3 x 2 $\frac{5}{16}$	13.75
Mouse	2853	McCormick, All Harvesters, 1884 and since.....	3 x 2 $\frac{1}{8}$	13.25
Mourn	2854	McCormick, Imperial Reaper.....	3 x 2 $\frac{1}{2}$	14.00
Mouth	2855	McCormick, Daisy Reaper, 1882-86; No. 2 Daisy Reaper, 1886-90; Folding Daisy Reaper, 1890-95; New Folding Daisy Reaper, 1905 and since; Bindlochine, 1893-95; R. H. Open Elevator Harvester, 1894-1901; L. H. Open Elevator Harvester, 1893-99.....	3 x 2 $\frac{1}{2}$	14.00
Mutter	2857H	Milwaukee, No. 12, Harvester, L. H., 1900; also 1906 and since (state year or send diagram).....	3 x 2 $\frac{1}{2}$	14.50
Moral	2860	Minnie, H. & B., 1901 and since.....	3 $\frac{1}{2}$ x 2 $\frac{1}{2}$	14.25
Oil	2887	Osborne, All Harvesters and Reapers to 1906.....	3 x 2 $\frac{1}{2}$	13.50
Oiling	2887A	Osborne, Columbia Harvester, 1906 only; Osborne Harvester, 1906 and since; Columbia Reapers 1906 and since.....	3 x 2 $\frac{3}{8}$	14.25
Pandour	2889A	Peerless Reaper.....	3 x 2 $\frac{3}{8}$	14.25
Para	2894	Plano, All H. & B.'s, except New Plano.....	3 x 2 $\frac{3}{16}$	13.50
Planner	2895	Plano, Header, 1892.....	3 x 2	13.00
Plantar	2896	Plano, Jones Reaper, 1895-1905.....	3 x 2 $\frac{1}{2}$	14.00
Quench	2907A	Plano, Jones Steel, Header, 1903 and since.....	4 x 2 $\frac{1}{4}$	17.00
Quest	2907B	Plano, 3 Holes, 14 Ga., Jones Mower, 1895-1907; Jones Jr. Mower, 1896- 1907; Jones Giant Mower, 1898- 1907.....	3 x 3 $\frac{1}{8}$	15.25
Resign	2907C	Plano.....	3 x 3	15.00
Resigning	2907D	Plano, New Plano H. & B., 1903-06...	3 x 3	15.00
Reside	2910	Randolph, Header.....	3 x 2	13.00
Revenue	2938	Reliance, Harvester and Binder (Sand- wich).....	3 $\frac{1}{2}$ x 2 $\frac{1}{8}$	13.50
Secure	2949	Stockton Chief, (Header).....	4 x 2 $\frac{1}{2}$	17.50
Sedan	2950	Sandwich (Adams & French).....	3 $\frac{1}{2}$ x 2 $\frac{1}{8}$	13.50
Servito	2955	St. Paul Harvester.....	3 $\frac{1}{2}$ x 2 $\frac{3}{8}$	13.50
Templar	2972	Triumph, Binder.....	3 x 2 $\frac{1}{2}$	14.00
Woven	3001	Wheeler, No. 6.....	3 $\frac{3}{16}$ x 2 $\frac{3}{4}$	15.00
Wrath	3005	Wood, Chain Rake Reaper, 1870 and after; Harvesters, 1875-77.....	3 $\frac{1}{2}$ x 2 $\frac{1}{4}$	14.50
Wreck	3006	Wood, Harvesters, 1878-93; Enclosed Gear Reaper, previous to 1893; Sr. and Jr. Sweep Rake Reapers..	3 x 2 $\frac{3}{16}$	13.50
Wrench	3007	Wood, Enclosed Gear Reaper, 1894 and since; All Open Rear and New Century Harvesters, 1894 and since.....	3 x 2 $\frac{3}{8}$	14.25
Wrestlo	3008	Warrior, (Deering).....	2 $\frac{1}{2}$ x 2 $\frac{1}{2}$	12.50

Corn Harvester Sections

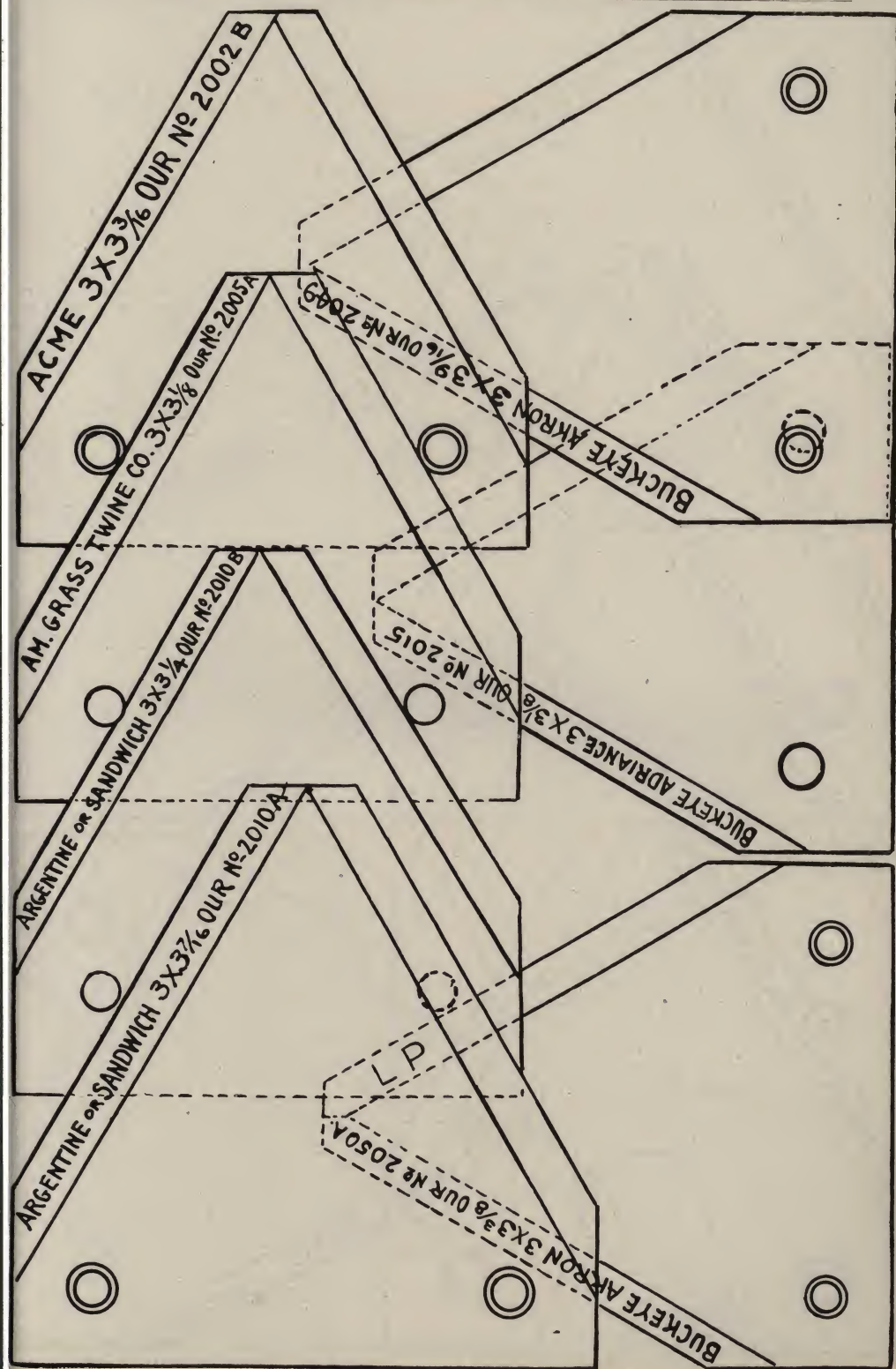
Our Corn Harvester Sections will fit the below named Machines, and are interchangeable with those furnished by the original Manufacturers of said Machines.

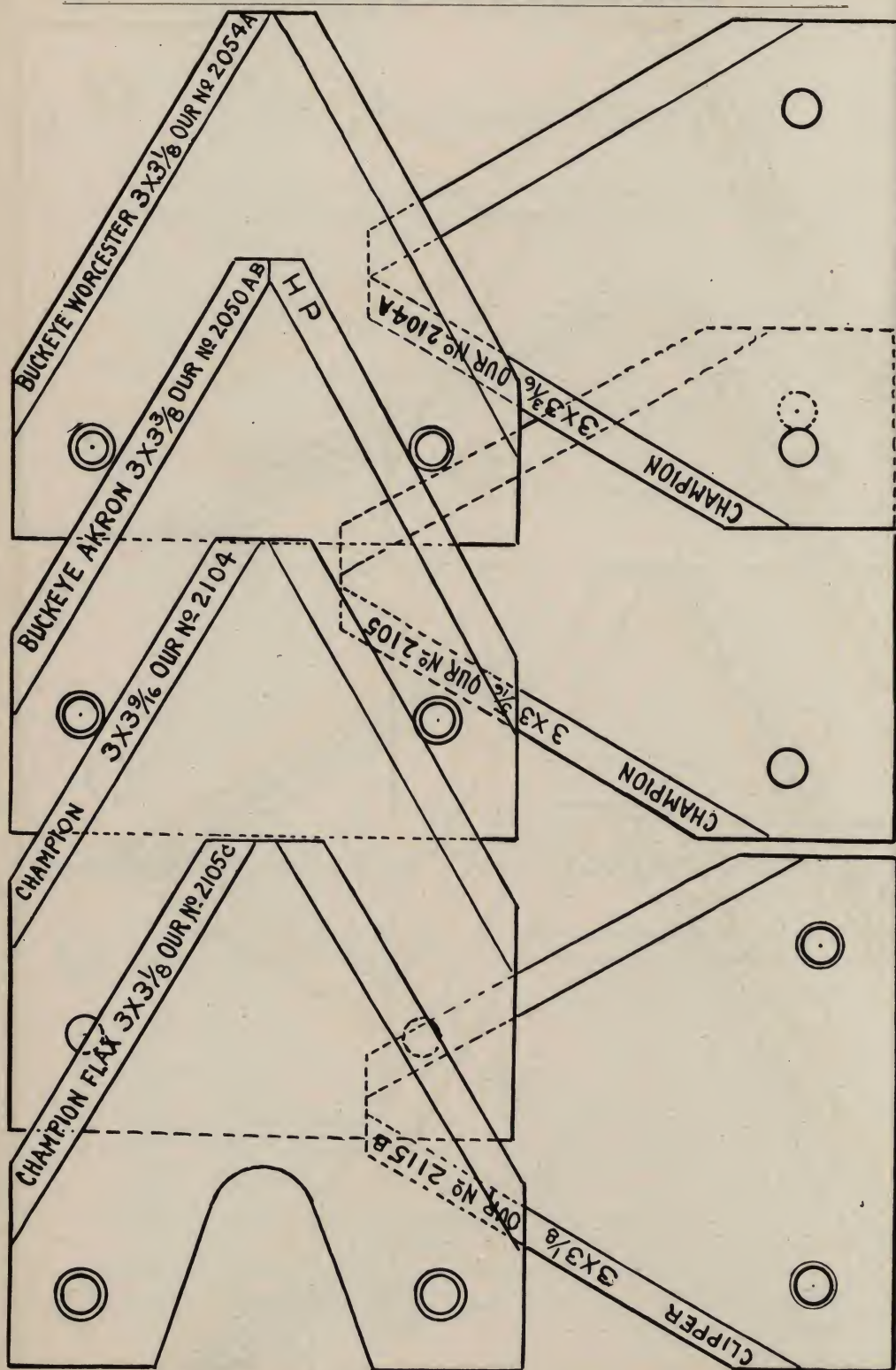
Telegraph Cipher	No.	NAME	Size	Price Per 100
Cheek	2693C	Champion , 1903 and since.....	4 x3½	\$19.00
Delve	2715D	Deering , will fit Deering 1900 and Ideal, 1900-05.....	3½ x3¾	15.50
Master	2856	McCormick , 1895 and since.....	4 x3½	19.00
Paine	2888A	Osborne , Columbia, 1895-1900; Osborne, 1901 and since.....	4 x3½	19.00
Plate	2904	Plano	3½ x2½	25.00
Plated	2904A	Plano	4 x3½	19.00

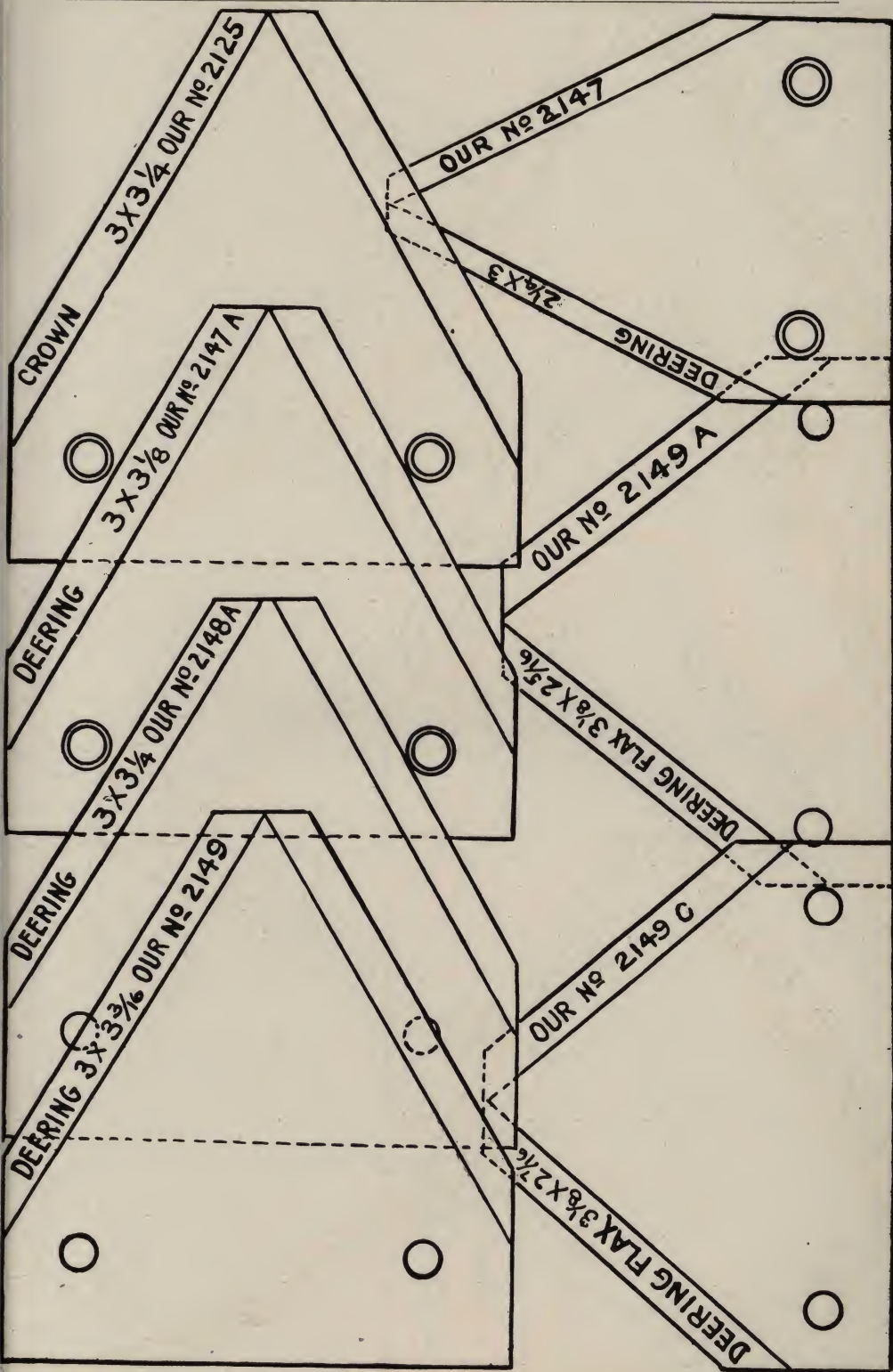
Band Cutter or Self Feeder Sections

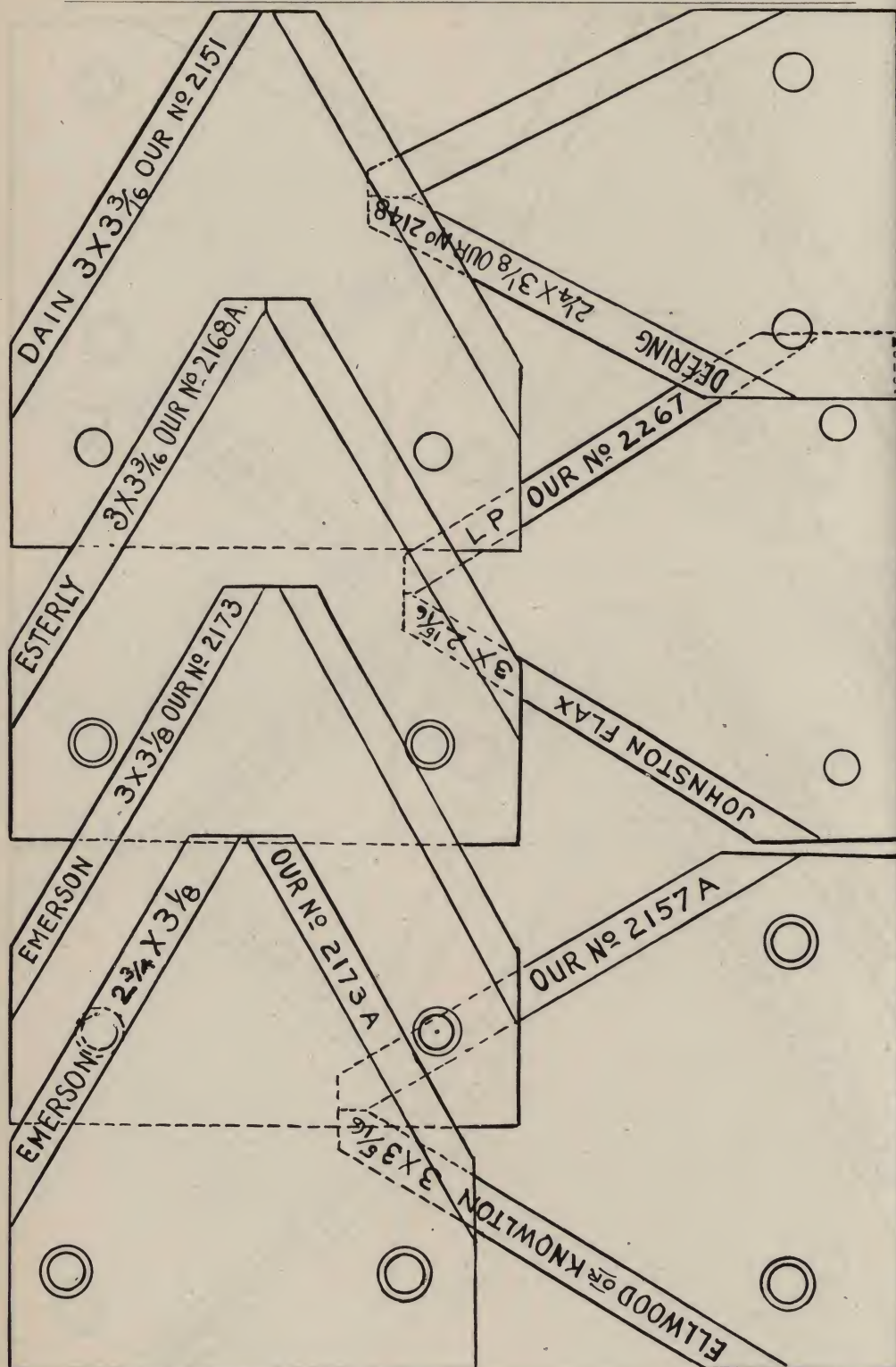
Our Band Cutter Sections will fit the below named Machines, and are interchangeable with those furnished by the original Manufacturers of said Machines.

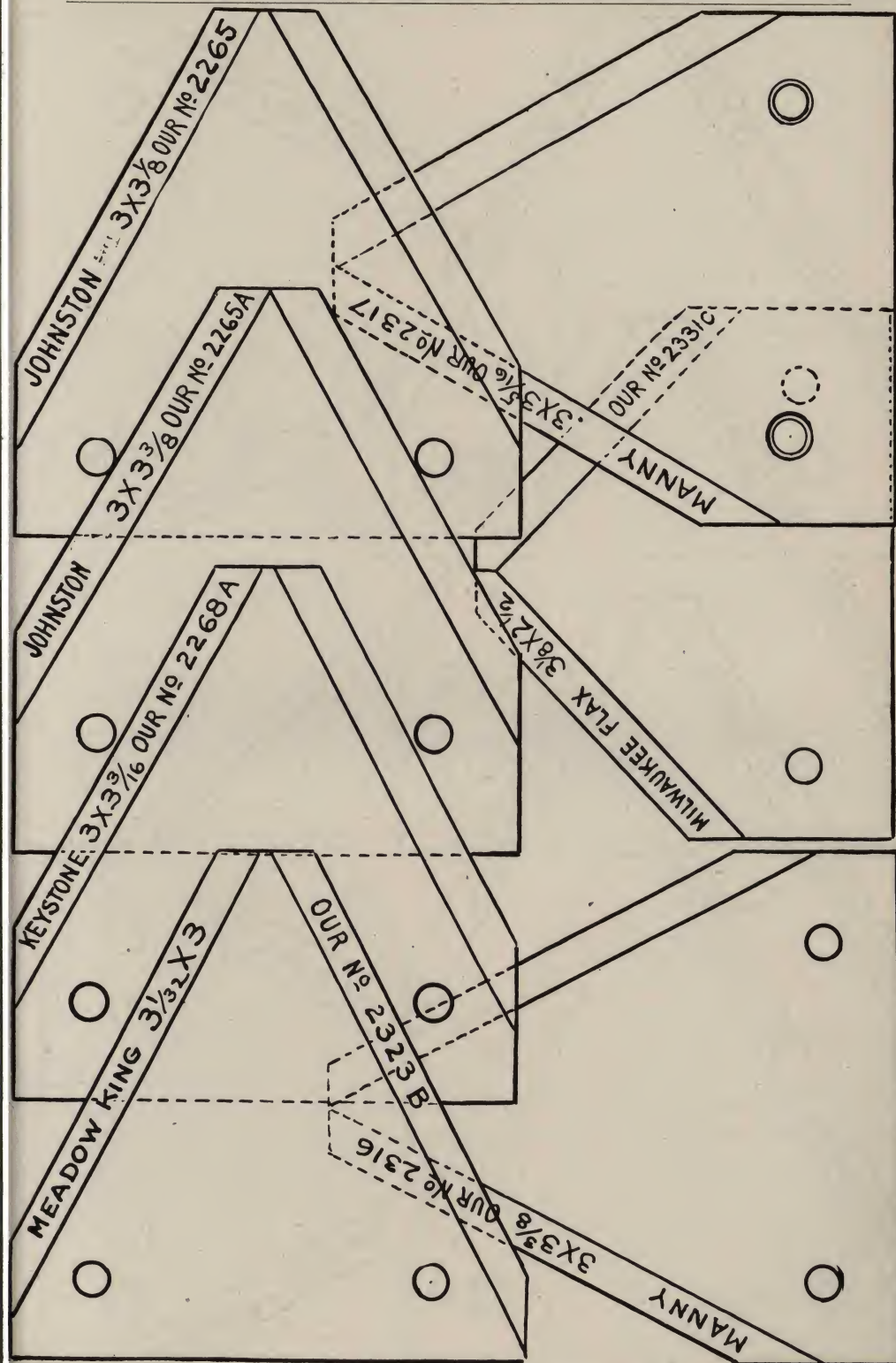
Telegraph Cipher	No.	NAME	Size	Price Per 100
Caseons	2678	Case Band Cutter.....	3 x2½	\$18.00
Garter	2735	Gaar Scott Band Cutter.....	4½ x2 ⅞	30.00
Huddle.	2769	Huber Band Cutter, 3 holes.....	4½ x3½	25.00
Parade	2889AA	Parsons Feeder, 1896-98-99. (State year or send diagram).....	3 x3 7/16	16.00
Paraded	2889BB	Parsons Feeder, Right.....	3 x3½	.....
Parading	2889CC	Parsons Feeder, Left.....	3 x3½	.....

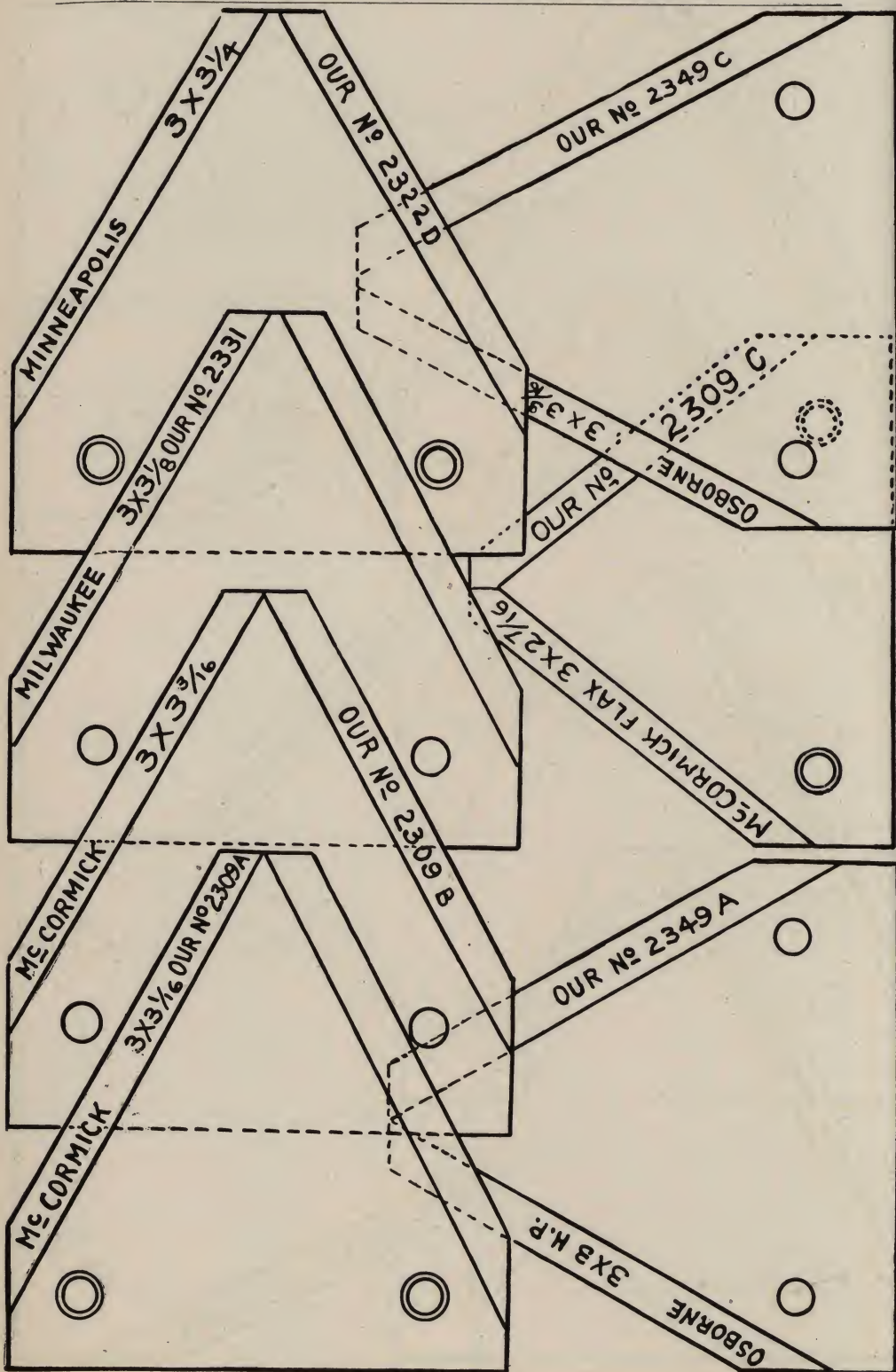


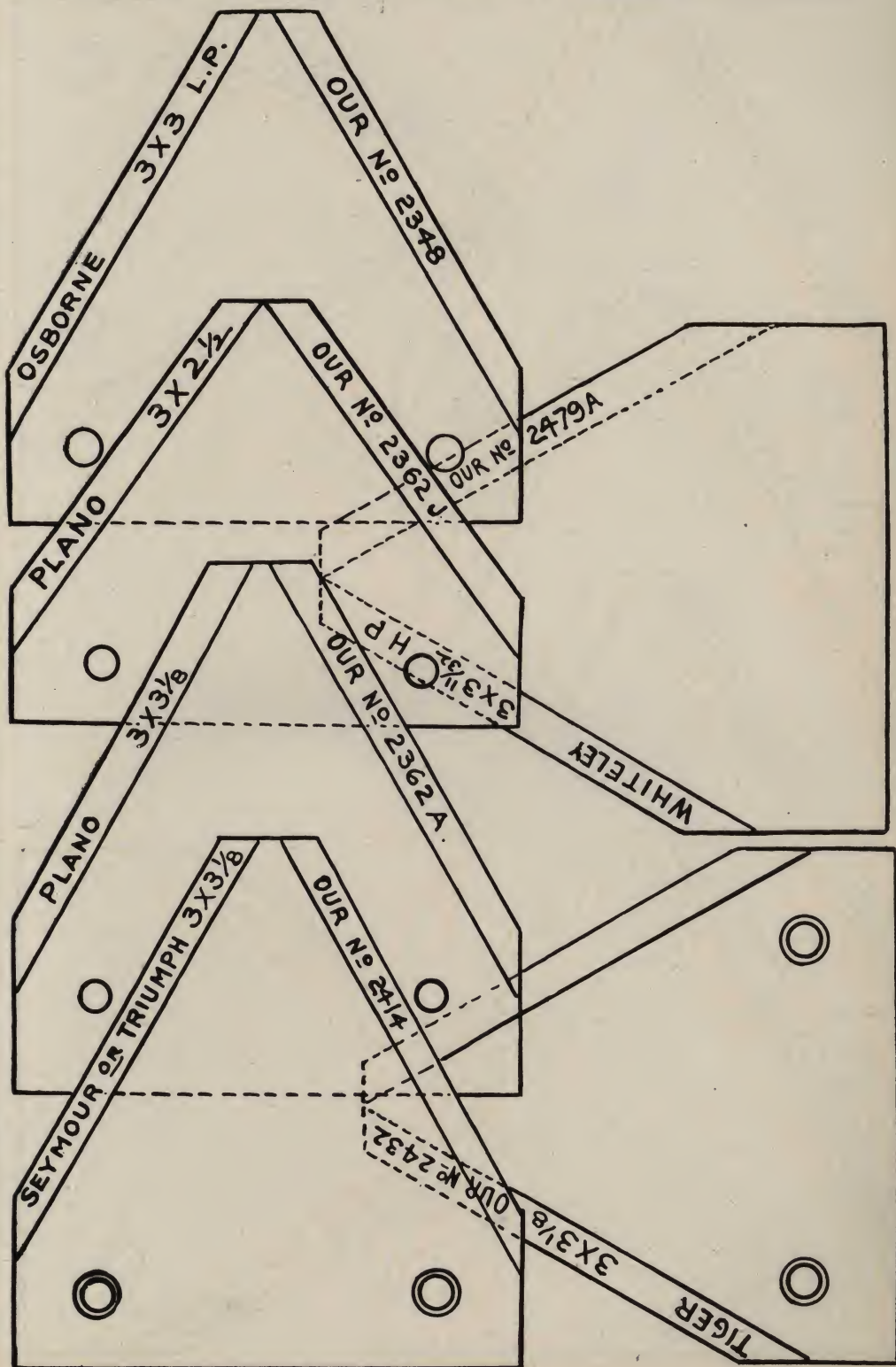


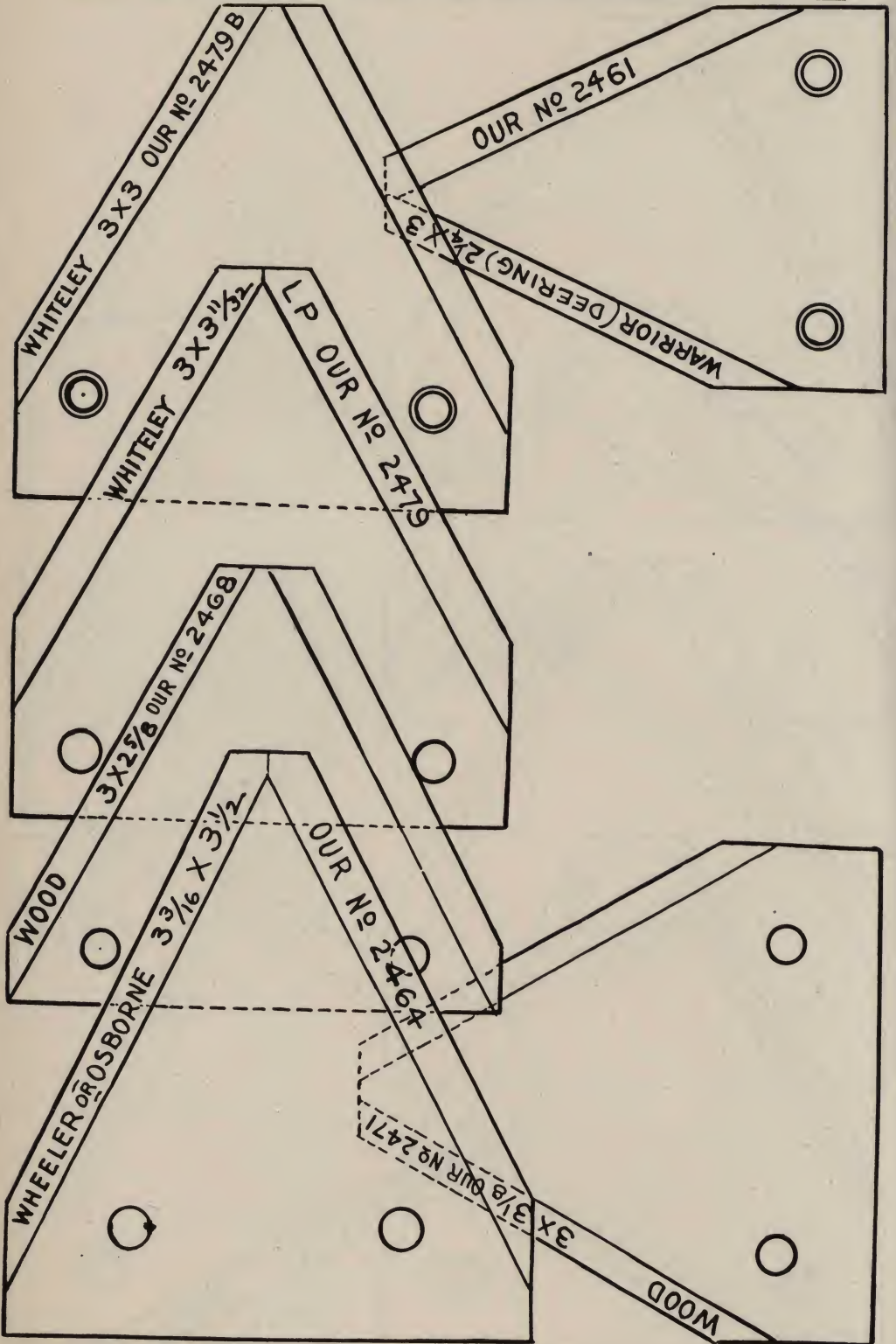


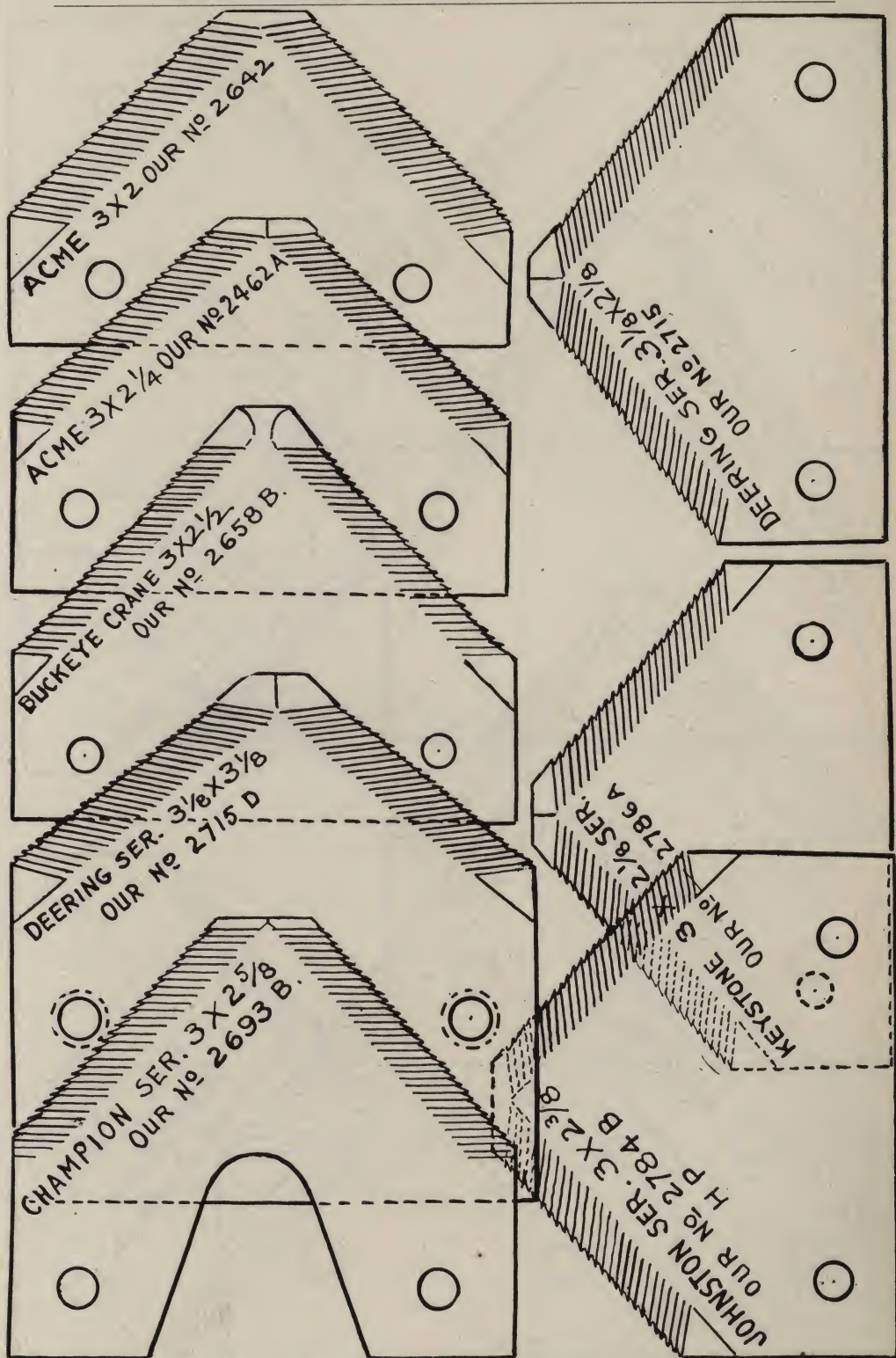


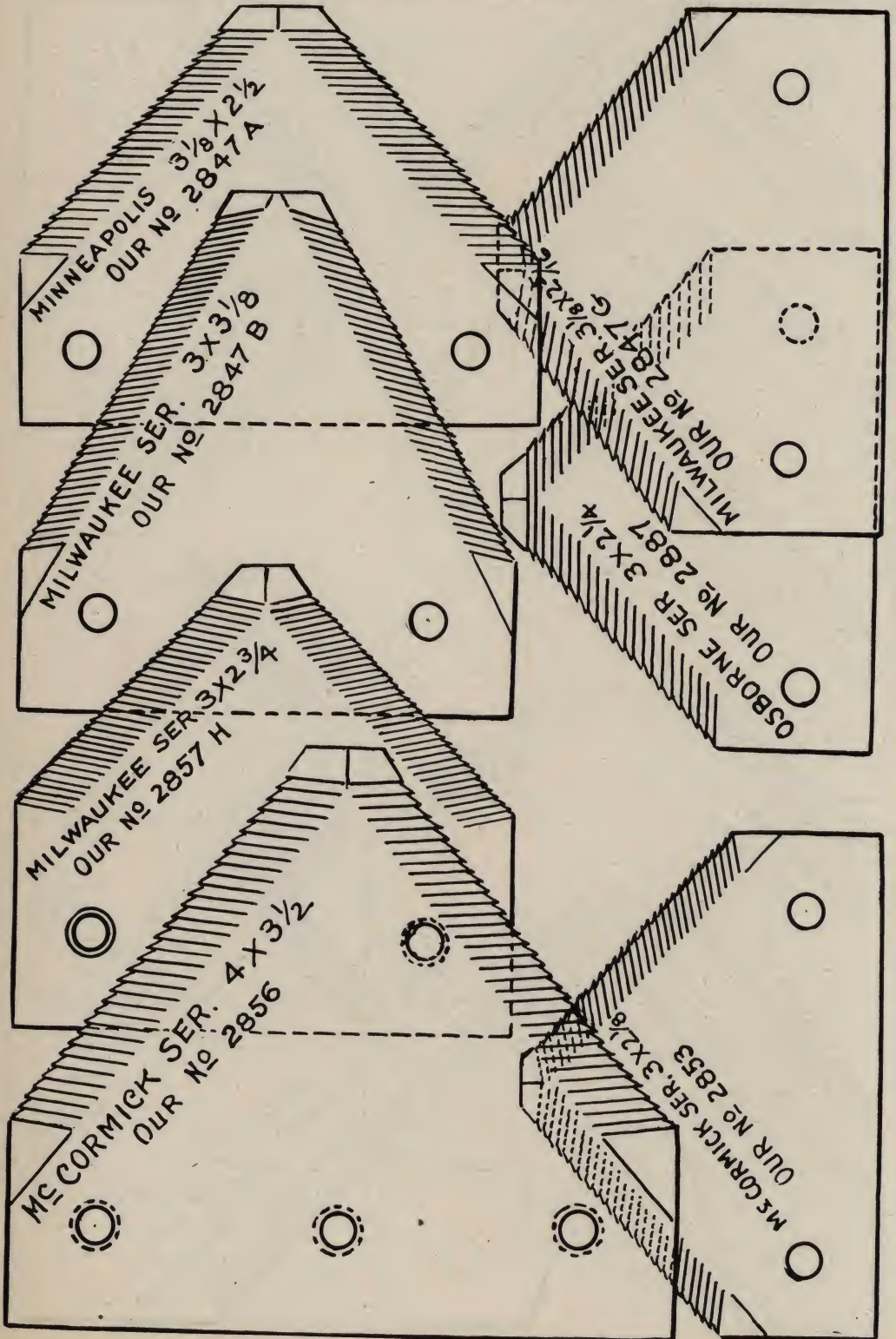


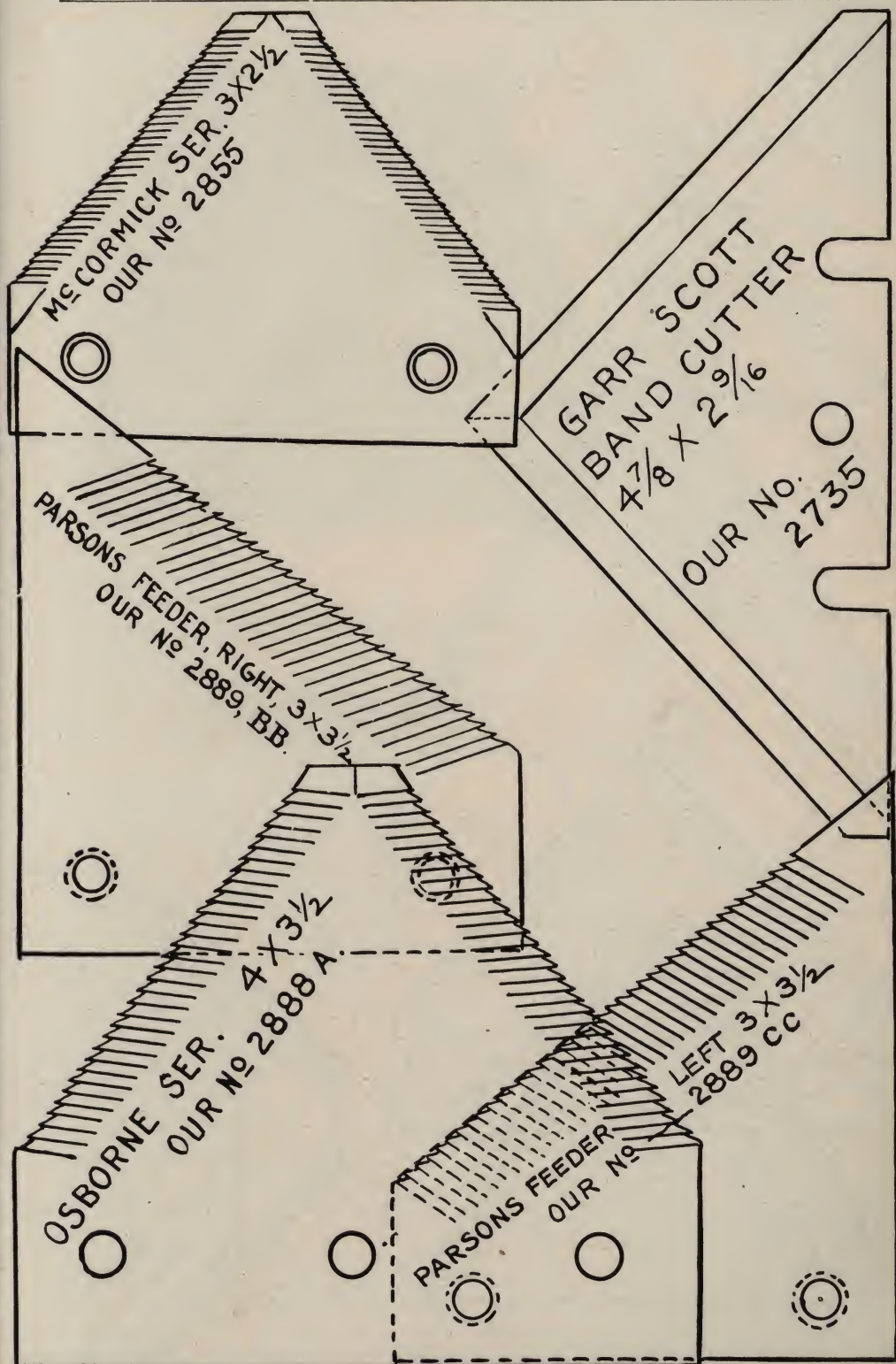


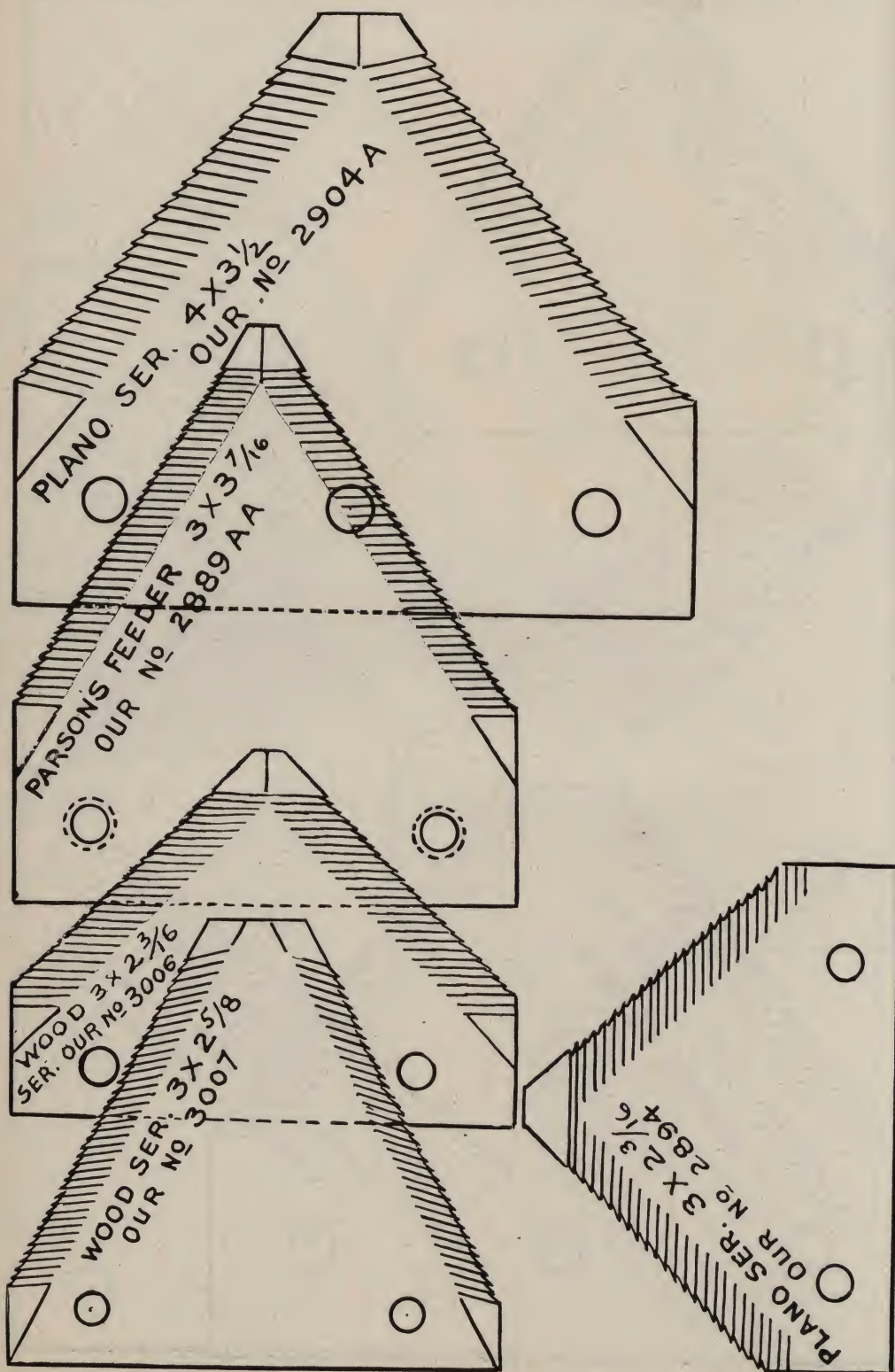














Blank Sections

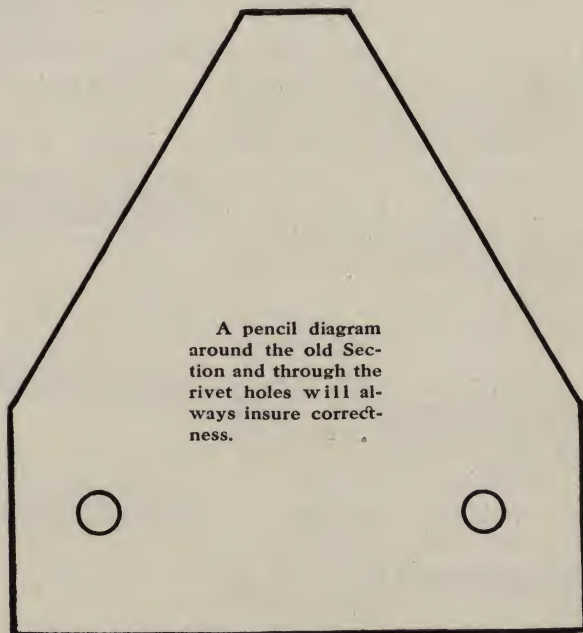
Prices same as Sections of
same size.

Tip Blanks

Each.....\$0.13

All Sections are packed in boxes containing 25 each.

Always order in full packages.



A pencil diagram
around the old Sec-
tion and through the
rivet holes will al-
ways insure correct-
ness.

Knife and Sickle Heads

To Fit All Machines



Our Knife and Sickle Heads will fit the machines for which they are intended and are interchangeable with those furnished by the original manufacturers of said Machines.

The number or description of the head used on any knife or sickle listed will be found in the lists of Knives and Sickles on pages 5 to 63, and the list prices applying to Heads will be found in the last column on these pages.

On pages 87 to 90 inclusive, we show a few of the many patterns of Knife Heads we are prepared to furnish.

If you do not find the Head you require shown here or listed in our list of Knives and Sickles (pages 5 to 63), write us, giving description.

SOLID HEADS are those welded to the bar, forming one straight piece, and the sections are sometimes above and sometimes below the bar.

LOOP HEADS are those welded to the bar, bent up over the end sections and riveted through, the sections being always on top of bar.

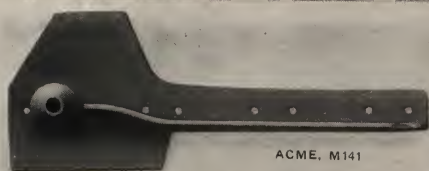
DETACHED OR STRAP HEADS are those riveted to the bar on top, and the sections also are above the bar.

MALLEABLE HEADS HAVE a number. Use it in ordering and say for what machine.

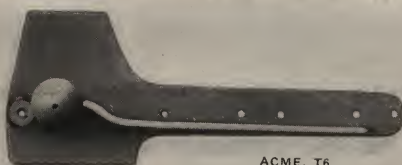
Knife Heads

We illustrate below only a few of the many patterns we can supply.

For List and Prices see Mower Knives and Harvester Sickles.



ACME, M141



ACME, T6



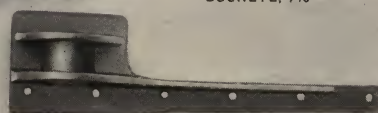
ACME, V40



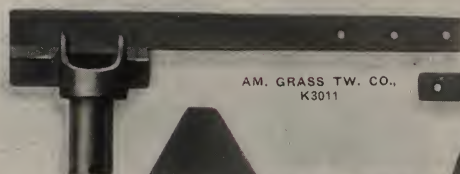
BUCKEYE, 716



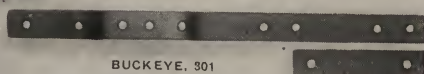
ACME, 4036



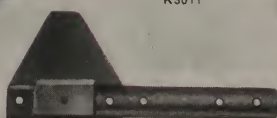
ACME, V258

AM. GRASS TW. CO.,
K3011

BUCKEYE, H700



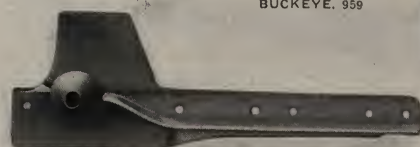
BUCKEYE, 501



BUCKEYE, 959



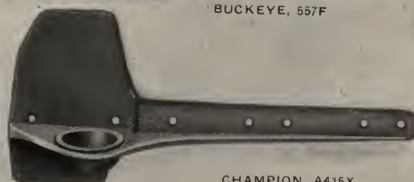
BUCKEYE, 1052



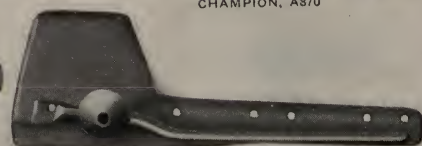
BUCKEYE, 557F



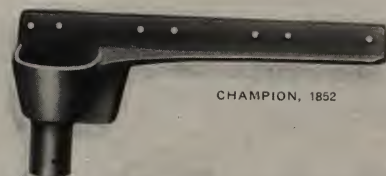
CHAMPION, A870



CHAMPION, A415X



CROWN, 6



CHAMPION, 1852



CLIPPER, C139

Knife Heads

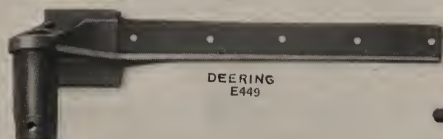
We illustrate below only a few of the many patterns we can supply.
For List and Prices see Mower Knives and Harvester Sickles.



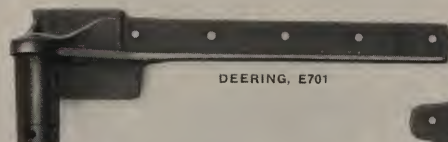
DAIN, Z4



DEERING, D626

DEERING
E449

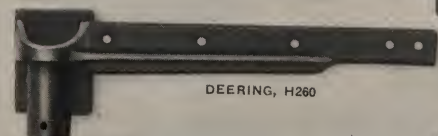
DEERING, F123



DEERING, E701



KEYSTONE, A184



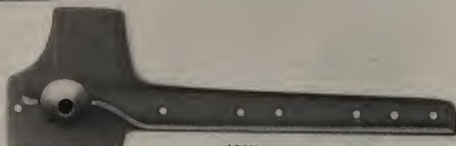
DEERING, H260



JOHNSTON, 124



EMERSON, M204



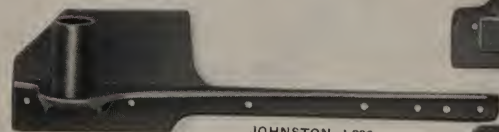
JOHNSTON, 919



EMERSON, M224



MINNEAPOLIS, C211



JOHNSTON, L296



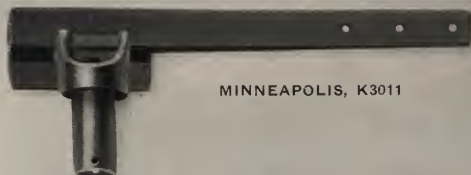
PLANO, J94



MILWAUKEE, PG6

Knife Heads

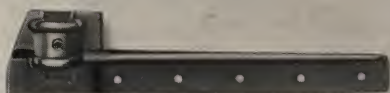
We illustrate below only a few of the many patterns we can supply.
For List and Prices see Mower Knives and Harvester Sickles.



MINNEAPOLIS, K3011



MILWAUKEE, SE34



McCORMICK, K43



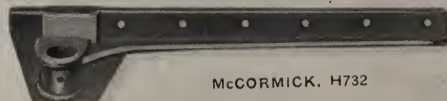
MILWAUKEE S34



McCORMICK, M139



McCORMICK, B410



McCORMICK, H732



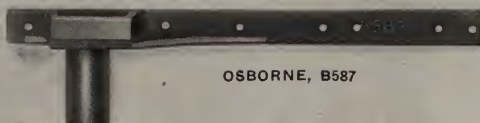
McCORMICK, B23



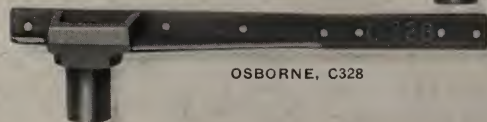
OSBORNE, K512



OSBORNE, K284



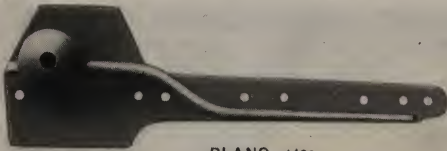
OSBORNE, B587



OSBORNE, C328

Knife Heads

We illustrate below only a few of the many patterns we can supply.
For List and Prices see Mower Knives and Harvester Sickles.



PLANO, J429



PLANO, L66



TIGER, M23B



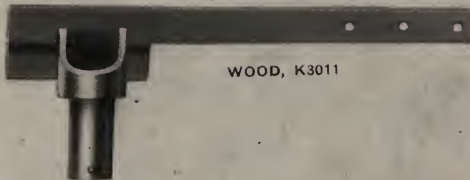
WOOD, 2479



WOOD, 470



WOOD, A2034

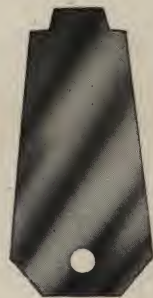


WOOD, K3011



WOOD, 1810

Mower and Harvester Guards



Our Guards will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Malleable Iron, Steel Plated

In order to avoid mistakes, parties in ordering must be sure to use the description on this list.

Telegraph Cipher	NAME	Price Each
Amos	Acme M. 75, Acme Mower, 1896-97.....	\$0.50
Acarus	Acme No. M181, Acme Mower, 1896-97, Hercules Mower, 1898-1900.....	.50
Abadias	Acme T2, Pony Mower, 1900 and since, New Hodges Mower, 1901 and since, Giant Mower, 1903 and since.....	.50
Ahednego	Acme 1064A, Small Binder L. H., 1895-1900; Small Binder R. H., 1899-1900; Harvester King S. D., 55" Wheel, 1900 and since; Harvester King S. D., 44" Wheel, 1895 and since; Harvester King D. D., 44" Wheel, 1896-01..	.40
Adam	Adriance, Buckeye Reaper, No. 990.....	.50
Albert	Adriance, Foreign Mower, No. 751.....	.50
Alvan	Adriance, Buckeye, No. 564, Sq. hole, Style H, Nos. 7 and 8 Mowers, prior to and part of 1899.....	.50
Adolph	Adriance, Binder, No. 1265.....	.50
Adorn	Adriance, Buckeye, Nos. 7, 8 and H Mowers, No. 564X.....	.50
Adroit	Adriance, Buckeye, No. 564B, round hole, Nos. 7 and 8 Mowers, part of 1899 only.....	.50
Adscript	Adriance, Buckeye, No. 3087, round hole, Nos. 7 and 8 Mowers, 1899 and since.....	.50
Baldwin	Adriance, Buckeye, No. 2, Common, to bolt on, (A. P. & Co., No. 68).....	.50
Basil	Adriance, Buckeye, No. 2, Heel, to bolt on, (A. P. & Co., No. 68A).....	.50
Baptist	Adriance, Buckeye, No. 716, (Common) Size A & B, (New Model), E, F and G, Mowers.....	.50
Barnaby	Adriance, Buckeye No. 716A (Heel), Size A and B (New Model), Mowers, prior to 1876.....	.50
Bolanz	Adriance, Buckeye, No. 695, Size C, One-Horse Mower.....	.50
Amaze	American Grass Twine Co., No. M257, "Minnie" Mower, 1902 and since.....	.50
American	American Grass Twine Co., M262, 1902, "Minnie" Mower....	.50
Achan	American Grass Twine Co., K1509 or A20, Chain Drive Har- vester, 1903 and since; Gear Drive Harvester, 1888 and since.....	.40
Abner	American Harvester Co., Mower, U.....	.50
Alice	American Harvester Co., Mower, U2.....	.50
Andrew	Ann Arbor, Agl. Co., Mower Guard, No. 49.....	.45

MOWER AND HARVESTER GUARDS—Continued.

Our Guards will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	NAME	Price Each
Bernhardt	Buckeye (Worcester and Fitchburg), New Model, Common Two-Horse, No. 2V.....	\$0.45
Brian	Buckeye (Worcester and Fitchburg), New Model, Heel.....	.50
Bruno	Buckeye (Worcester and Fitchburg), Common, No. V3, One-Horse Chain Gear Mower.....	.45
Barker	Buckeye (Richardson), No. V2A, Worcester Chain Gear "B" Mower.....	.45
Barbara	Buckeye (Richardson or Worcester), No. V, Nos. 5 and 6 and O. H. New Standard Mowers, 1903 and since.....	.45
Blanche	Buckeye (Canton and Akron, Ohio), No. 501, Common, 1868 to '74.....	.50
Bona	Buckeye (Canton and Akron, Ohio), No. 896, Common, 1875 and since.....	.50
Bartholomew	Buckeye (Canton), Light Mower, No. 304.....	.45
Boylan	Buckeye (Canton), New Mower, No. 1496.....	.45
Belial	Buckeye (Canton), No. 246.....	.50
Bardolph	Buckeye (Akron), New Mower, No. 304, 1876-87.....	.45
Belden	Buckeye (Akron), New Mower, Heel Guard, No. 305½, 1886-87.....	.50
Bowers	Buckeye (Akron), New Mower, No. 499, 1884-87.....	.50
Benson	Buckeye (Akron), New Mower, Heel Guard, No. 497, 1884-87.....	.50
Bissell	Buckeye (Akron), New Mower, Outside Guard, No. 511, 1884-87.....	.60
Blackburn	Buckeye (Akron), No. 775, Buckeye and New Buckeye Mowers, 1888-95; Light Mower, 1892-95.....	.50
Bina	Buckeye (Akron), Outside, No. 774, Buckeye and New Buckeye Mowers, 1888-90.....	.90
Bronson	Buckeye (Akron), Inside No. 773, Buckeye and New Buckeye Mowers, 1888-95; Light Mower, 1892-95.....	.50
Billow	Buckeye (Akron), Outside Guard, No. 242, Buckeye and New Buckeye Mowers, 1890-94; Light Mower, 1892-94.....	.60
Barder	Buckeye (Akron), No. T35, Buckeye Frameless Binder, 1890 and since; Banner Binder, 1888.....	.50
Bardism	Buckeye , Short, N. S., 1895, No. 775X, Buckeye and New Buckeye Mowers, 1895 and since; Light Mower, 1895 and since.....	.50
Brooks	Bradley Mower, No. 400.....	.50
Clacey	Clipper Mower (Brockport), No. 635, 1881 and 1883.....	.50
Cady	Crown Mower, No. 3 Square Hole, Janesville.....	.50
Charles	Crown Mower, No. 03, with Lug, Janesville.....	.50
Caroline	Champion , A41, Rear Cut Mowers, 1871-77.....	.50
Cleveland	Champion , A42, Draw Cut and Hay Maker Mowers, 1895 and since.....	.50
Cecil	Champion , A121, B. J. Mowers.....	.50
Celiac	Champion , No. A465, Draw Cut and Hay Maker Mowers, 1895-1900.....	.50
Cedule	Champion , No. B629, Folding Bar Reaper, 1899-1902.....	.50
Ceduous	Champion , No. A811, Draw Cut Mower, Hay Maker, One and Two-Horse, 1901 and since; Folding Bar Reaper, 1903 and since.....	.50
Carlos	Champion , A881, New Draw Cut and Big Draw Cut Mowers, 1905 and since; Vertical Lift Mower, 1904 and since, and One-Horse Draw Cut Mower, 1906 and since.....	.50
Cornelia	Champion , No. 3025 New Champion Binder, 1902 and since..	.50
Cana	Champion , U53, Force Feed Binder, 1894 and since.....	.50
Clarence	Clipper , (for 3x3½ Section).....	.50
Dickens	Dain , Z5, Mower, 1895, and since.....	.50
Denny	Deering , No. F99, for 2½ in. sections, F. C. Giant Mower, 1886-89; New Deering and O. H. Mower, 1887-89.....	.45

MOWER AND HARVESTER GUARDS—Continued.

Our Guards will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	NAME	Price Each
Dick	Deering, No. F99½, for 2½ in. sections, Ideal Mower, 1893-94; F. C. Giant Mower, 1890-96; New Deering Mower, 1890- 97; O. H. Mower, 1890-96.....	\$0.45
Dorgan	Deering, No. D122, for 2½ in. sections, Warrior and Deering's Mower, 1882-87.....	.45
Dalrymple	Deering, No. DO, for 3 in. sections, R. C. Giant Mower, 1884- 87; Deering Mower, 1883-87.....	.50
Deasley	Deering, No. D215, for 2½ in. sections, ¾ in. Bar only, New Deering Mower, 1886-87.....	.45
Durant	Deering, No. F, for 3 in. sections, F. C. Giant Mower, 1885-89; New Deering and O. H. Mower, 1887-89.....	.50
Doyle	Deering, No. F½, for 3 in. sections, Ideal Mower, 1893-97, F. C. Giant Mower, 1890-96; New Deering Mower, 1890-97; O. H. Mower, 1890-96.....	.50
Drumm	Deering, No. D400, for 3 in. sections, Deering Mower, 1886....	.50
Drumbe	Deering, No. A306, Canada Pony, 1896-98; Ideal H. & B., 1899.....	.45
Drumly	Deering, No. D442, Ideal, Ideal Giant and Ideal O.H. Mowers, 1898-1903; Ideal Vertical Lift, 1902-04.....	.50
Deborah	Deering, No. D698, Ideal, Ideal Giant and Ideal O. H., Verti- cal Lift Mowers, 1904 and since; Ideal Vertical Lift Mower, 1904-06.....	.50
Duncan	Deering, No. C455 Ideal Reaper, 1900 and since.....	.45
Drummer	Deering, No. C260, Ideal Reaper, 1894-99.....	.45
Daily	Deering, No. 286, Jr. and Imp. Steel H. & B., 1890-1900; Stan- dard H. & B., 1882-86; Junior H. & B., 1884-86; A. S. H. & B., 1886-90; Ideal H. & B., 1898 and since; Pony H. & B., 1893-98.....	.40
Drunk	Deering, No. E522, (Outside Guard) Ideal H. & B., 1898 and since; Pony H. & B., 1893-98; Jr. and Imp. Steel H. & B., 1890-1900.....	.45
Drunkard	Deering, E769 Center Guard; Ideal H. & B., 1898-1902; Pony H. & B., 1897-98; Jr. and Imp. Steel H. & B., 1897- 1900.....	.40
Dengel	Deering, No. 517, (Double) Push Header and Push Binder, 1901-06, (not Spokane or Portland, 1905).....	.50
Ellen	Eagle, (Wm. Anson Wood) No. 9½.....	.50
Eaves	Eureka Mower, No. 40.....	.50
Evarts	Eureka Mower, No. 40D, for 3x3½ Section.....	.50
Erasmus	Esterly Mower, M75.....	.50
Enos	Emerson, Standard Mower, O, 1879-84 Nut on top of Bar....	.50
Eliza	Emerson, Standard Mower, S, 1884-88, Nut on under side of Bar.....	.50
Enoch	Emerson, No. 2 Reaper, P.....	.50
Elmer	Empire Mower, No. 55.....	.50
Gilbert	Granite State, No. 9.....	.50
Gerald	Granite State, No. 9B.....	.50
Giles	Granite State, No. X.....	.50
Harold	Hopkins, Mower, H.....	.50
Herbert	Howe, Mower Guard, H. M.....	.50
Irpe	Imperial S., with Sickle Plate.....	.50
Job	Johnston, No. 43, W. I. Harvester, 1875. and since.....	.50
John	Johnston, No. 77, Reg., Cont. Reaper, 1878-93; Imp. Cont. Reaper, 1891 and since; No. 5 Mower, 1879-97; No. 6 Mower, 1880-95.....	.45
Jack	Johnston, No. 50A, Cont. H. & B., 1887-94; L. H. Open End Cont. H. & B., 1893-96; Bonnie H. & B., 1895-99; R. H. Cont. H. & B., 1894-96.....	.40

MOWER AND HARVESTER GUARDS—Continued.

Our Guards will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	NAME	Price Each
Jacobin	Johnston , No. 897. Used on No. 5 and M. C. Mower, 1898 and since; Nos. 6, 8, 9 and M. G. Mowers, 1896 and since; No. 10, Gear Drive, 1901 and since	\$0.50
Jonathan	Johnston , L458, 1902; Bonnie and R. H. Continental Flax Binders.....	.50
Jackdaw	Johnston , K307, L. H. Cont. and Bonnie Binders, 1900 and since; R. H. Cont. Binder, 1901 and since .....	.45
Julius	Johnston , No. 1811, Nos. 9 and 10 Mowers, 1903, only....	.50
Kate	Kirby , No. 628 for Two-Wheel Mower, .....	.50
Kishi	Keystone , No. A161, Mower, 1904 and since .....	.50
Kitron	Keystone , No. E45, Binder, 1905 and since .....	.40
Keturah	Knowlton , Mower, with Sickle Plate, 1885-1886.....	.50
Keziah	Knowlton Mower, K. B. with Sickle Plate, 1887.....	.50
Kane	Knowlton Mower, K. 2S with Sickle Plate, 1887.....	.50
Madoc	Minneapolis , Binder Guard, No. 54½.....	.40
Marcellus	Minneapolis , Binder Guard, No. 55½.....	.40
Morgan	Minneapolis , Mower, No. C55, Chain Drive, 1893.....	.50
Melzar	Minneapolis , Binder, No. A20 (K1509) Gear Drive Harvester, 1888 and after; Chain Drive Harvester, 1893 and after. ....	.40
Millicent	Meadow King , A. ....	.45
Marcus	McCormick , Imperial Mower, No. 0.....	.50
Media	McCormick , No. 2 Mower, No. M21, 1884-87.....	.50
Malluch	McCormick , Nos. 3 and 4 Mowers No. M229, 1887.....	.50
Madeline	McCormick , No. M532, Little 4 Mower, 1894-99.....	.50
Myron	McCormick , No. M804, Little 4 Mower, 1900-01; Little Vertical, 1902 and since .....	.50
Mallay	McCormick , No. M253, No. 4 Mower, 1888-91; Big 4 Mower, 1889-91; Little 4 Mower, 1889-93.....	.50
Melton	McCormick , No. M462, No. 4 and Big 4 Mowers, 1892-97; New 4 and Vertical Lift Mowers, 1896 and since; New Big 4 Mower, 1898 and since.....	.50
Malcomb	McCormick , L1, Daisy Reaper, 1882-86; No. 2 Daisy Reaper, 1886-90; Folding Daisy Reaper, 1890-1905; New Folding Daisy Reaper, 1905 and since.....	.45
Mollie	McCormick , No. LA1, (Curved), Folding Daisy Reaper, 1890-1905; New Folding Daisy, 1905 and since.....	.50
Manton	McCormick , No. H 495, Pipe Frame Harvester, 1888-1901; R. H. Open Elev. Harv., 1895-1901; New Open Elev. Harv. R. H. and L. H., 1901 and since.....	.50
Mabel	McCormick , No. H917, for Bindlochine, 1893-95.....	.45
Mordecai	McCormick , JA1, Header, 1906 and since.....	.20
Murdock	McCormick , No. J1, Header, 1900-05.....	.20
Mamie	McCormick , No. JA2, Inside Guard Header, 1906 and since.....	.20
Mathews	McCormick , No. J2, Inside Guard Header, 1900-05.....	.20
Maxwell	McCormick , No. J192, Header, Prev. to 1900.....	.50
Massey	Milwaukee , Chain Power, Mower, No. P1.....	.50
Morton	Milwaukee , Chain Power, Mower, No. P2.....	.50
Myers	Milwaukee , Harvester, No. J76.....	.40
Morris	Milwaukee , No. S37, Steel Jr., No. 10 Harvester, 1889 and since.....	.40
Mott	Milwaukee , No. PG4, Chain Power Mower, No. 6, 1892.....	.50
Muller	Milwaukee , No. PG5, Chain Power Mower, No. 6, 1892.....	.50
Murat	Milwaukee , No. PH5, Chain Power Mower, No. 6, 1893.....	.50
Mildred	Milwaukee , PK5, No. 3 Chain Power Mower, 1898; Nos. 5 and 6 Chain Power Mowers, 1895 and since.....	.50
Milesian	Milwaukee , (Same as PK5), No. PH4.....	.50
Magdalen	Milwaukee , SL37, L. H. Harvester, No. 12, 1900-01.....	.40
Magog	Milwaukee , SM37, L. H., Harvester, No. 12, 1902 and since.....	.40

MOWER AND HARVESTER GUARDS—Continued.

Our Guards will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	NAME	Price Each
Musset	Manny, J. P., 1877 and since, No. A	\$0.50
Noah	New Model, Centre Draft (Same as Buckeye, N. M., No. 2V). . . . .	.50
Oberlin	Osborne, Mower, No. K72, Nos. 3 and 4 Mowers, 1893-98; Big 4 Mower, 1895-98 . . . . .	.50
Oliver	Osborne Mower, No. 628. (See Kirby.) . . . . .	.50
Orlando	Osborne, No. C40, No. 8 Reaper, 1881-1903; Columbia Reaper Two-Horse, 1894 and since; Columbia Reaper One-Horse, 1899 and since . . . . .	.50
Osmose	Osborne, No. B124, No. 11 Harvester, 1883-91; Jr., L. H. Harvester, 1888-91; Jr., R. H. Harvester, 1887-91; New Osborne Harvester L. H. and R. H., 1892-94 . . . . .	.50
Osmotic	Osborne, No. K280, Columbia Mowers—"B," 1897-1905; "C," 1896-1905; "D," 1898-1905 . . . . .	.50
Oscar	Osborne, No. D300, Columbia Harvester, 1895-1902 . . . . .	.50
Osmite	Osborne, No. C341, Columbia Harvester, 1902-06; Osborne Harvester, 1905 and since . . . . .	.50
Omega	Osborne, No. K380, Foreign Columbia Mowers, 1899-1905 . . . . .	.50
Paul	Osborne, No. K514, Columbia B-C and D Mowers, 1902-05; No. 1 Mower, 1904 and since; Nos. 2 and 3 Mowers, 1903 and since . . . . .	.50
Parker	Plano, No. V, for 2½ inch Section, Plano Mower, 1885-92 . . . . .	.45
Patti	Plano, No. H46, Jones Mower, 1889-94 . . . . .	.50
Pauline	Plano, No. J110, Jones Chain Mower, 1894-98 . . . . .	.50
Paum	Plano, No. J124, Jones Chain Mower, 1894-1903 . . . . .	.50
Phelps	Plano, No. L67, Jones Lever Binder, 1896 . . . . .	.30
Phengite	Plano, No. H171, Light Steel Harvester, 1891-95 . . . . .	.40
Phenix	Plano, No. J136, Jones Chain Jr., Mower, 1896-07; Jones Chain Mower, 1899-07; Jones Vertical, Big Vertical and Vertical Jr., 1903 and since . . . . .	.50
Phenol	Plano, No. L300 . . . . .	.40
Pheon	Plano, No. L236, Jones Lever Binder, No. 2, 1896 . . . . .	.45
Platen	Plano, No. L180, Jones Lever Binder Nos. 1 and 2, 1897- 1907 . . . . .	.45
Peleg	Plano, No. J386, Jones Vertical and Big Vertical Mowers, 1901-02; Jones Vertical Jr., Mower, 1902 . . . . .	.50
Rachel	Plano, No. L630, New Plano Binder, 1903 and since . . . . .	.50
Ruth	Peerless, No. 642 . . . . .	.50
Rogler	Rawson, No. 4 . . . . .	.50
Roderic	Rawson Mower, No. 8 . . . . .	.50
Sampson	Red, White and Blue, No. 539 (Fuller & Johnson) . . . . .	.50
Saul	Steele Mower, O . . . . .	.50
Santom	Sandwich, "Argentine" Mower, No. C . . . . .	.50
Stiles	Sandwich, "Argentine" Mower, No. C2, 1889 . . . . .	.50
Theron	Sandwich, "Argentine" Mower, No. C3, 1890 . . . . .	.50
Thomas	Tiger Mower, M8 . . . . .	.50
Vashti	Triumph Reaper, No. 2 . . . . .	.50
Vergil	Victor Mower (Niverville), Old Style . . . . .	.45
Washington	Victor Mower, (Niverville), New Style . . . . .	.45
Ward	Wood, No. A, Enc. Gear Mower, 1883 and after; Enc. Gear 2-horse, with Tilt Bar, 1885 and after; Enc. Gear 1- horse, with Tilt Bar, 1887 and after; Tub. Steel Mowers (Special), 1892 and after; Giant Mower, 1901 and after . . . . .	.45
Watson	Wood, No. B, Low Cut, Foreign . . . . .	.50
Wolsey	Wood, No. D, Low Cut, Foreign . . . . .	.50
West	Wood, No. 8, Low Cut, Foreign . . . . .	.50
Welton	Wood, No. 16, Low Cut, Foreign . . . . .	.45
Western	Wood, No. E, Tubular Steel, 2-H, 1890, only . . . . .	.45
Whedon	Wood, No. P, Tubular Steel Mower, 1891-97 . . . . .	.45
	Wood, No. PP Tubular Steel Mower, 1891 and since . . . . .	.45

MOWER AND HARVESTER GUARDS—Continued.

Our Guards will fit the below named Machines and are interchangeable with those furnished by the original Manufacturers of said Machines.

Telegraph Cipher	NAME	Price Each
Whitcomb	Wood, No. 377, Wood Frame Mower, 1867 and after; Iron Mower, 1871-73.....	\$0.40
Wilson	Wood, No. 638, Iron Frame Mower, 1874 and after; Sr. Sweep Rake Reaper, 1875 and after; Jr. Sweep Rake Reaper, 1877 and after; Enc. Gear Reaper, 1886 and after....	.45
Whittaker	Wood, No. 324, Enc. Gear Mowers, 1878, only.....	.45
Wendell	Wood, No. 3, Enclosed Gear Mower, 1879-1883.....	.45
Whitney	Wood, No. H171, Harvester, 1880-93; Enc. Gear Reaper, 1885 only.....	.40
Wilmot	Wood, No. C538, Minneapolis Cyclone Mower, 1894 and since.....	.45
Wilkie	Wood, No. A20 (See Minneapolis).....	.40
Wilfred	Wood, W. Open Rear Harvester L. H., 1894 and after....	.40
Willard	Wood, No. H2620, New Century Harvester, 1903 and after..	.40
Willis	Wood, No. 2355, Tubular Steel (Special), and Giant Mower (Special), 1903 and after.....	.50
Weaver	Wood, No. S. A.....	.50
Warner	Wood, No. S2355.....	.50
Weber	Wood, No. 2421.....	.50
Winfield	Warrior, (Little Falls), 1872-78, No. W., Deering.....	.40
Winnie	Warrior V., 1880 and since, Plano.....	.45
Wilhelmina	Wheeler, No. 623, No. 6 Mower.....	.50
Wallace	Wheeler, No. 623 $\frac{1}{2}$, No. 2 Mower.....	.50
Warburton	Whiteley, Steel Mower, 2-Hole, No. A16, 1889-90.....	.50
Wade	Whitely, No. A185, Tricycle, 1891.....	.50
Waffle	Whitely, "1897" pattern, No. 49.....	.50

On pages 97 and 98 we show cuts of a few of the Guards for Mowers and Harvesters we are prepared to furnish.

If you do not find the Guard you want, listed here, write us.

For Guard Plates, Guard Bolts, etc., see page 110.

For diagrams of Guard Plates, see pages 99 to 109.

Mower and Reaper Guards

We illustrate only a few of the many patterns we can supply.

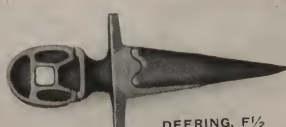
For complete list and prices see pages 91 to 96.



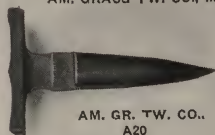
AM. GRASS TW. CO., M262



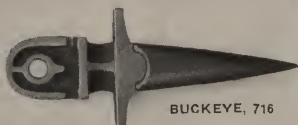
BUCKEYE, T35



DEERING, F1/2



AM. GR. TW. CO.,
A20



BUCKEYE, 716



DEERING,
D698



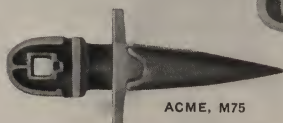
ACME, A1064



BUCKEYE, V2A



DEERING,
286



ACME, M75



CROWN, 3



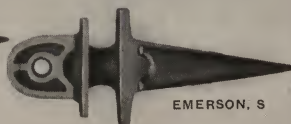
DEERING,
D442



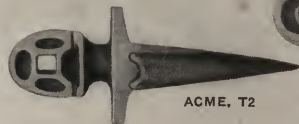
ACME, M181



CHAMPION,
A811



EMERSON, S



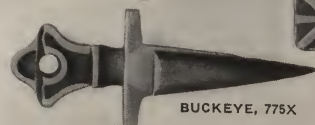
ACME, T2



CHAMPION,
A465



EMPIRE, 55



BUCKEYE, 775X



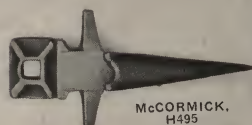
CLIPPER, 635



ESTERLY,
M75



DAIN, Z5

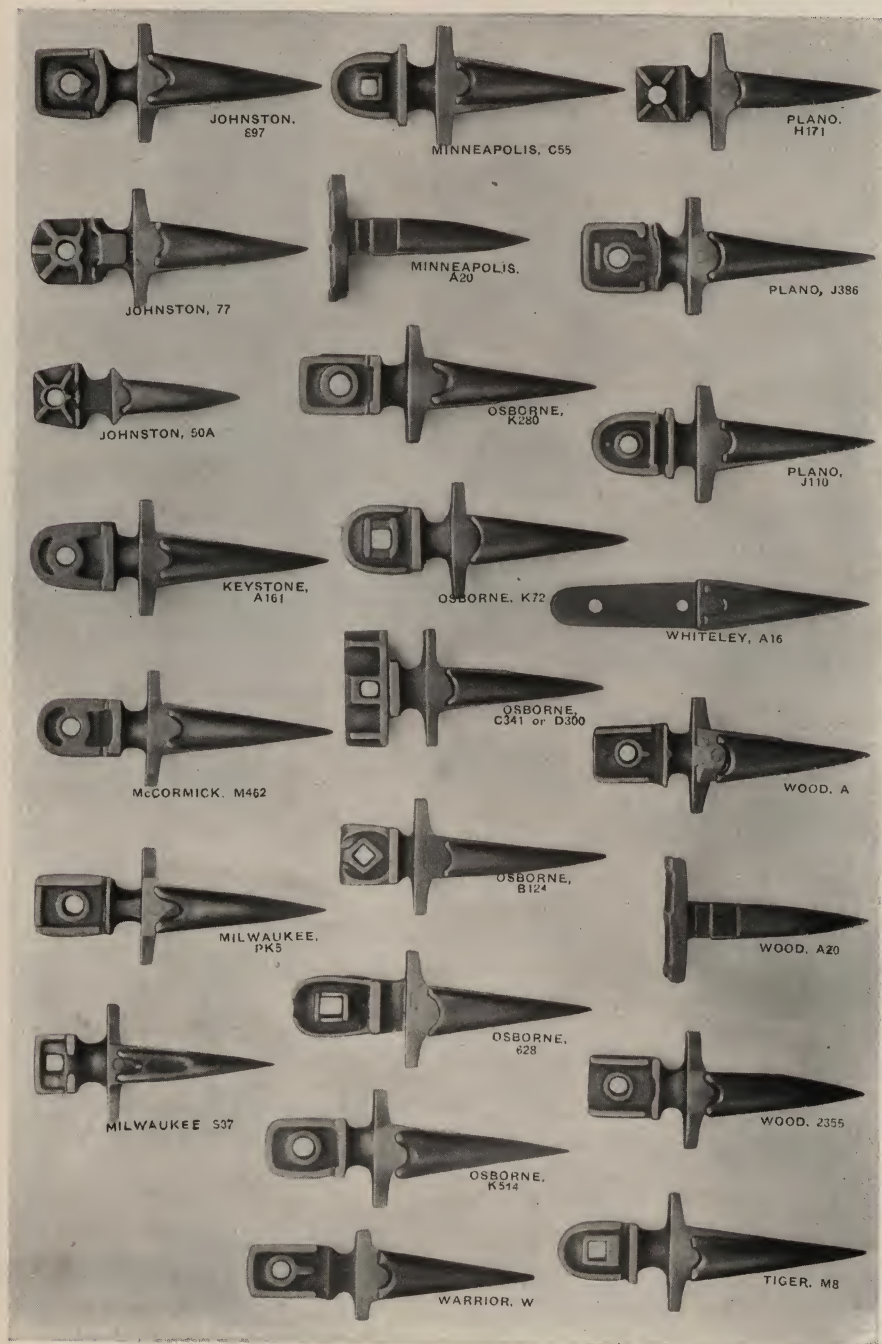


McCORMICK,
H495

Mower and Reaper Guards

We illustrate only a few of the many patterns we can supply.

For complete list and prices see pages 91 to 96.



○ AM. GRASS TWINE Co.
A 20

ACME
M 181 ○

ACME
75 ○

○ BUCKEYE
V 2 A

○ ACME
1064 A

BUCKEYE ADRIANCE
716 ○

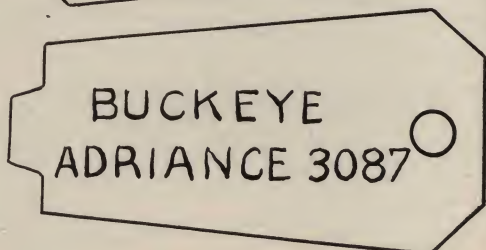
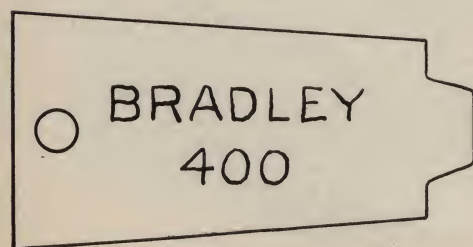
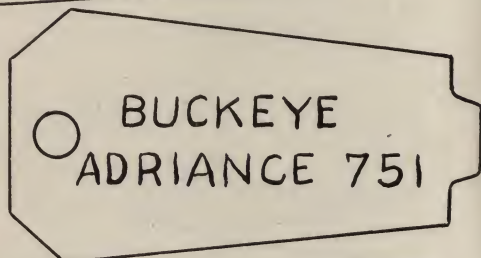
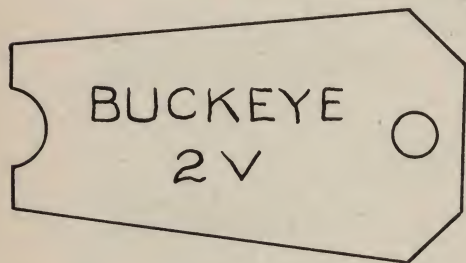
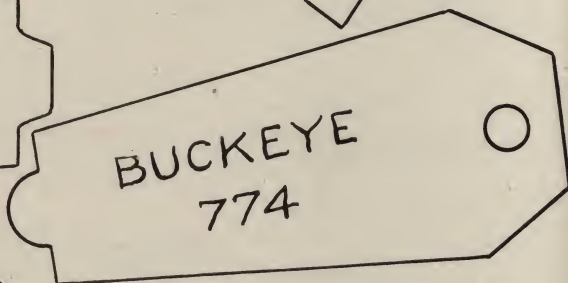
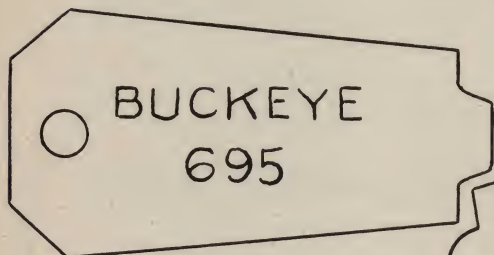
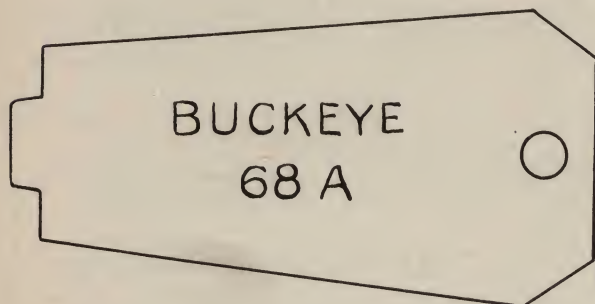
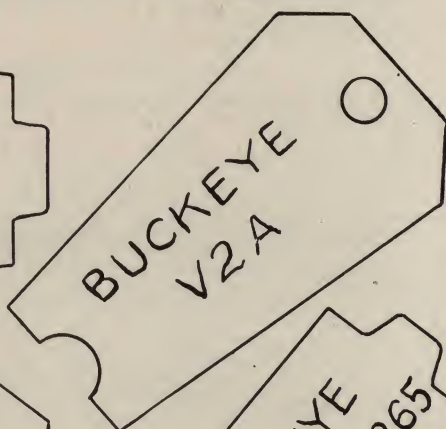
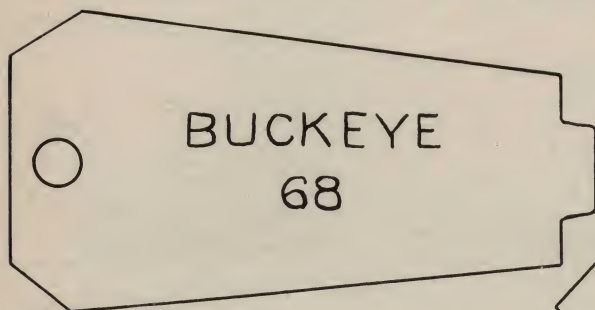
ACME
T 2 ○

BUCKEYE
T 35 ○

○ ANN ARBOR
49

BUCKEYE
775

AM. HARVESTER
U. 2 ○



BUCKEYE
1016

CHAMPION
B 629

BUCKEYE
499

CHAMPION
A 465

BUCKEYE
242

CHAMPION
A 811

CROWN
3

CLIPPER
635

CROWN
03

DEERING
D 698

CHAMPION
A 121

DEERING
F 99½

CHAMPION
A 41

DEERING
F

DEERING
22

DEERING
D 442

DEERING
DO

DEERING
F ½

DEERING
122

DEERING
286

DAIN
Z 5

GRANITE STATE
9B

ESTERLY
M 75

GRANITE STATE
9

EMERSON
NO. 5

JOHNSTON
897

EMPIRE
55

JOHNSTON
77

EUREKA
40D

JOHNSTON
K 307

EUREKA
40

EMPIRE
319

KNOWLTON
K B

KNOWLTON
K. 2-S

MINNEAPOLIS
C 55

MILWAUKEE
P G 5

McCORMICK
M 462

McCORMICK
M 253

MILWAUKEE
S 37

McCORMICK
H 495

MILWAUKEE
P K. 5

MINNEAPOLIS
A 20

McCORMICK
H 917

JOHNSTON
50 A

MANNY A

○ MC CORMICK
K 395

OSBORNE ○
K 72

MC CORMICK ○
L 1

○ OSBORNE
628

○ MINNIE
M 257

OSBORNE ○
C 40

OSBORNE ○
K 280

○ OSBORNE
D 300

○ OSBORNE
K 514

OSBORNE ○
K 380

OSBORNE
B 124

PLANO
J 136

PLANO
J 386

PLANO
L 180

PLANO
L 67

TIGER
M 8

PLANO
J 110

RED WHITE & BLUE
539

PEERLESS
642

SANDWICH
C-C2-C3

PLANO
V

PLANO
H46

TRIUMPH
635

WHITELY
A 16

WOOD
P

WHITELY
A 185

WHITLEY
49

WOOD
3

WOOD
A

WOOD
2355

WARRIOR
W

WOOD
A 20

WHEELER
W 623½

WOOD
H 171

WOOD
324

WOOD
C 538

WOOD
638

WOOD
2421

WARRIOR
V

WOOD
S. 2355

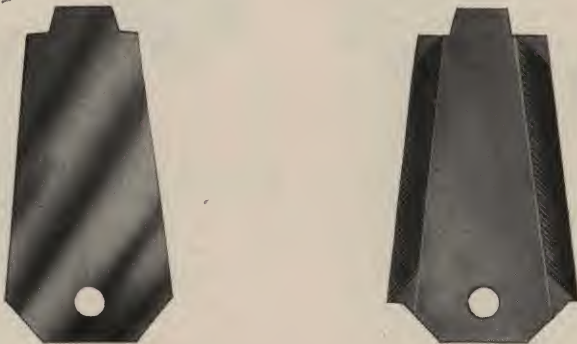
WOOD
E

WOOD
S A

WOOD
P P

Guard Plates

Smooth or Serrated To Fit All Machines



Our Guard Plates will fit the Machines for which they are intended and are interchangeable with those furnished by the original manufacturers of said Machines.

On pages 99 to 108 inclusive, we show diagrams of a number of the Guard Plates we are prepared to furnish, but we can supply many not shown there.

List of Guards for which we can supply plates are found on pages 91 to 96 inclusive, and if you do not find the plate shown in our pages of diagrams nor the Guard listed, make tracing of the plate, showing rivet hole, and mail with your order.

In ordering give number of Guard and name of Machine for which plate is wanted.

Unless smooth Guard Plates are specified on order, we will ship serrated.

Guard Plates are packed 50 in a box.

Always order in full packages.

PRICES.

Guard Plates, all kinds. Each.....\$0.10

Guard Bolts

To Fit All Machines



In ordering Guard Bolts, always give length and diameter and style of head or state number of Guard and name of Machine for which bolt is wanted.

PRICES.

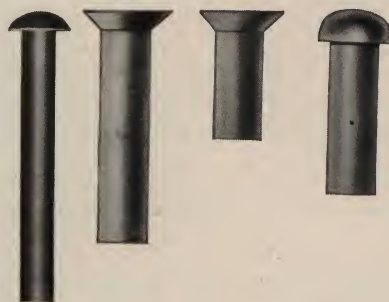
Guard Bolts, all kinds. Each.....\$.010

Section, Guard and Pitman Rivets

To Fit All Machines

Packed in One Pound Boxes.

Always Order in Full Packages.



In ordering always give length and diameter or gauge of Rivet and state whether bung head or countersunk head is wanted, or give name, date and style of Machine.

PRICES.

Section Rivets, all sizes.	Per pound.....	\$.30
Knife Head Rivets, all sizes.	Per pound.....	.30
Guard Rivets, all sizes.	Per pound.....	.30
Guard Plate Rivets, all sizes.	Per pound.....	.30

Pitman Boxes



Will Fit the Following Machines

NAME	Price Each	NAME	Price Each
Acme (Pekin) M65 and 67.....	\$0.70	Deering, D138 and D139.....	\$0.75
Acme Pitman Box, M148 .....	.80	Deering, D212 .....	.70
Acme Bushing, M182 .....	.25	Deering, D461 .....	.60
Acme T12 or M575 .....	.50	Deering, D608 .....	.60
Acme Bushing, T12 .....	.30	Deering, D711 .....	.50
Argentine, B8 .....	.90	Empire, Thimble, Seiberling's No.	
Bradley, 342 .....	.80	90, O. S.	1.00
Buckeye, Thimble, Canton, No.		Empire, Seiberling's, No. 425 N. S.	1.00
601 .....	.60	Empire (Yoke), No. 424.....	1.00
Buckeye, (Akron,) No. 1040 ...	.50	Empire, No. 534 .....	.80
Buckeye, Half Box, No. 88 Akron	.40	Empire (Rear Crank), No. 418..	1.20
Buckeye Binder, No. 403 and No.		Empire (Front Crank), No. 417..	1.20
403½	1.60	Emerson (Standard), 1 and 2....	.60
Buckeye, New York, EG1 .....	.85	Emerson (Standard), 2 and 3....	.60
Buckeye, New York, New Model		Emerson (Standard), M202.....	.60
No. 61, Two Halves	1.00	Esterly, No. M65 and M67.....	.70
Buckeye, (New Model), No. 61C.	.80	Esterly, Binder, H174B.....	1.20
Buckeye, 61D .....	.80	Excelsior, L66	1.00
Buckeye (Adriance Binder), No.		Eureka, No. 91	1.00
961, Two Halves	1.00	Ellwood, No. A57 .....	.75
Buckeye, Worcester, X2B .....	.80	Imperial, No. 0 and 00.....	.50
Capital city, 1 and 2 .....	.60	Johnston, No. 60½, 1876 and since	1.00
Champion, No. A188 .....	.80	Johnston, No. 257	1.00
Champion, Boxes, No. 441 .....	.30	Johnston, No. 108	1.00
Champion, No. 441, No Tip.....	.30	Hodges Header, A616 .....	.80
Champion, No. 441½, With Tip	.30	Hopkins, No. 2	1.50
Champion, Draw Cut, A747.....	.50	Knowlton, K108 (Front Crank),	
Champion, A748 and 749, Mall...	.30	3½ inches long	1.00
Champion, No. 101 .....	.30	Knowlton, K107 (Rear Crank),	
Champion, A72 .....	.50	3 inches long	1.00
Champion, B683½, Mall. 1905...	.30	Knowlton, No. A .....	.75
Champion, A828 .....	.30	Keystone, (Sterling), A163 .....	.80
Champion, A891 .....	.30	Manny, No. 130 .....	.80
Climax, Box B. P.	1.00	Minneapolis, C26 .....	.80
Climax, No. 49 and B49	1.00	Minneapolis, C240 and C241....	1.00
Clipper (See Triumph.)		McCormick, No. M137, 1885 to '87	.65
Crown, No. 25 .....	.75	McCormick, No. A-N, or M34 with	
Deering, No. D168 and D169 ....	.80	M35 .....	.60
Deering, No. D210 .....	.60	McCormick, No. A-O or M35 .....	.30
Deering, No. D194 and D169....	.85	McCormick, No. T or M33.....	.70
Deering, No. D204 and D205....	.80	McCormick, No. 33 or T no cap..	.50
Deering, No. D414 .....	.65	McCormick, M317 .....	.50
Deering, Bushing, No. D415.....	.35	McCormick Binder, H565 .....	.50
Deering, F 75	1.00	McCormick, HA565 .....	.50
Deering, D334	1.00	McCormick Binder, H118 .....	.60
Deering, D321 .....	.65	McCormick Binder, H755 .....	.20

Continued on next page

Pitman Boxes

We illustrate below a few of the many patterns we can supply
For complete list and prices see pages 111 and 113.



ACME,
M65 and 67



BUCKEYE,
X25



BUCKEYE,
88



CHAMPION,
A747



CROWN, 25



DEERING,
F75



DEERING,
D334



DEERING,
D608



CHAMPION,
441 1/2



CHAMPION,
A101



EMERSON,
1 and 2



EMPIRE,
425NS



ESTERLY,
M65 and 67



KEYSTONE,
A163



JOHNSTON,
257



McCORMICK,
HA565



McCORMICK,
M317



MILWAUKEE,
PH50



MINNEAPOLIS,
C240 and C241



OSBORNE,
K278



OSBORNE,
K361



OSBORNE,
Big 4



PLANO, J99



WOOD, 291 1/2



WOOD,
2027



WOOD,
1785

Pitman Boxes—(Continued)

NAME	Price Each	NAME	Price Each
McCormick Binder, H756.....	\$0.20	Plano, PM96	\$0.80
McCormick Binder, H757 .....	.20	Red, White and Blue, No. 597....	.80
McCormick Binder, H773 .....	.20	Red, White and Blue, No. 4000....	.40
McCormick Binder, H759 .....	.20	Red, White and Blue, No. 4001....	1.00
McCormick Bushing, M317½ .....	.25	Steele, A51.....	.75
McCormick Binder, No. T260 ....	.20	Steele, M.....	.75
McCormick Binder, No. 275 .....	.60	Sandwich, C30.....	.75
Milwaukee, P80 .....	.70	Sandwich, B158.....	.75
Milwaukee, No. PH50 with Bush- ing .....	.80	Sandwich, B8.....	.75
Milwaukee, Nos. 46 and 47	1.00	Thompson, 310.....	1.00
Milwaukee, Brass Bushing, PG173 ..	.25	Tiger, M159, Brass.....	.75
Milwaukee, PG50, with Bushing, PH173 .....	.80	Triumph, C143.....	1.00
Milwaukee, Brass Bushing, PH173 ..	.30	Triumph, A244.....	1.00
Milwaukee, PJ50 .....	.80	Triumph, A200.....	1.00
New Minnie, M256 .....	.60	Wheeler, No. 5 and No. 6, No. W7 ..	1.00
Osborne, No. K52 and K53 .....	.80	Wood, (Walter A.) No. 3415.....	.40
Osborne, K278 .....	.60	Wood, No. 539 and 540.....	.60
Osborne, No. W7	1.00	Wood, No. 1732.....	.60
Osborne, Big Four, Two Halves..	.60	Wood, No. 291½.....	.60
Osborne, K361 .....	.60	Wood, No. 5415, 3½ in. long, 15-16 hole .....	.60
Osborne, K530, 1905 .....	.60	Wood, No. 5417, 2¼ in. long, ¾ in. hole.....	.60
Osborne, (Big Four Solid).....	.60	Wood, No. 1785.....	.60
Rawson, 269	1.00	Wood, No. 3578.....	.60
Peerless, Box, Brass, No. 437 or 1250	1.00	Wood, No. 2027.....	.60
Peerless, 1820 and 1821, Brass... ..	1.50	Winona, S64 and S65.....	.75
Peerless, 1822 and 1823, Brass... ..	1.00	Whiteley, A116 .....	.75
Plano, J99 .....	.50	Whiteley, Tricycle, A178, Brass..	.80
Plano, J100, Bushing .....	.30	Whiteley, 441½, Malleable.....	.30
Plano, A87 .....	.90	Whiteley, A132 .....	.75
Plano, (Warrior)	1.00	Whiteley, No. A79.....	.30
		Whiteley, No. 198.....	.30

Pitman Bolts**Will Fit the Following Machines**

NAME	Price Each	NAME	Price Each
Buckeye, Complete with washers..	\$0.15	Keystone, 7-16x3, A199, with Nut..	\$0.10
Champion, ½ inch, Left, A96....	.20	McCormick, M322, with Nut.....	.10
Champion, ½ inch, Right, No. 13 ..	.20	McCormick, M483 with Nut 2½x 7-16 .....	.10
Champion, H442, with Nut.....	.15	McCormick, 483½ with Nut 3x7-16 ..	.10
Champion, H609, with Nut.....	.15	Milwaukee, with Horn Nut, PG174 ..	.10
Champion, ¾ inch.....	.20	Milwaukee, with Ratchet Nut, PG 175 .....	.10
Crown, Knife End (Short).....	.10	Osborne, Box End (Long).....	.10
Crown, Box End (Long).....	.10	Osborne, Knife End (Short).....	.10
Dain, Box End, Z2510.....	.10	Plano, 7-16x3 with Nut J134.....	.10
Dain, Knife End, Z2504.....	.10	Plano, 7-16x2½ with Nut J103....	.10
Deering, Knife End.....	.10	Plano, 7-16x2½ with Nut J147....	.10
Deering, Box End.....	.10	Plano, 7-16x2½ with Nut J363....	.10
Emerson, (Standard) Box End, Z382 .....	.10	Whiteley, A425 .....	.20
Emerson, (Standard) Knife End, Z381 .....	.10	Whiteley, A453 .....	.20
Keystone, 7-16x2¾, A198, with Nut ..	.20	Wood, with Nut.....	.20

Pitman Straps

We illustrate below a few of the many patterns we can supply.
For complete list and prices see page 116.



DAIN, Z220



DAIN, Z224



KEYSTONE, A181



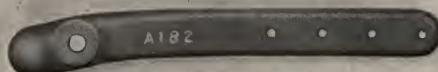
DAIN, Z226



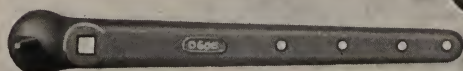
KEYSTONE, A183



DEERING, D605



KEYSTONE, A182



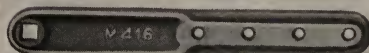
DEERING, D606



DEERING, D607



McCORMICK, M147



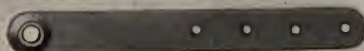
EMERSON, M416



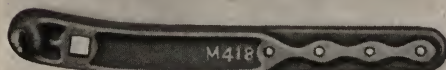
McCORMICK, M304



EMERSON, M417



McCORMICK, M315



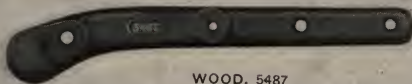
EMERSON, M418



McCORMICK, M316

Pitman Straps

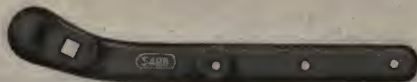
We illustrate below a few of the many patterns we can supply.
For complete list and prices see page 116.



WOOD, 5487



MILWAUKEE, PL9



WOOD, 5488



MILWAUKEE, PL9 1/2



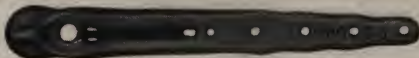
WOOD, 5491



MILWAUKEE, PM34



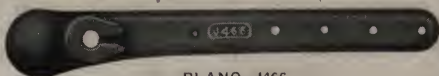
WOOD, 5492



MILWAUKEE, PM35



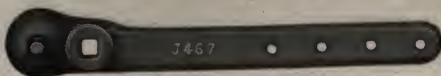
WOOD, 2297



PLANO, J466



WOOD, 2298



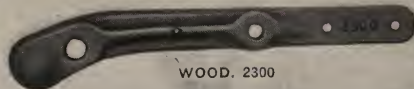
PLANO, J467



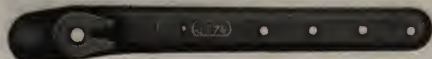
WOOD, 2299



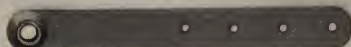
PLANO, J378



WOOD, 2300



PLANO, J379



PLANO, J380

Pitman Straps and Clasps

Drop Forged Steel and Malleable Iron



Will Fit the Following Machines

NAME	Price Each
Buckeye (Worcester,) 773A Steel.	\$0.20
Buckeye (Worcester,) 774A Steel.	.20
Dain, Z220, Steel.....	.20
Dain, Z224, Steel.....	.20
Dain, Z226, Steel.....	.20
Deering, D696, Steel.....	.20
Deering, D464, Malleable.....	.20
Deering, D465, Malleable.....	.20
Deering, D470, Steel.....	.20
Deering, D605, Steel.....	.20
Deering, D606, Steel.....	.20
Deering, D607, Steel.....	.20
Emerson (Standard,) Mall. M416	.20
Emerson (Standard,) Mall. M417	.20
Emerson (Standard,) Mall. M418	.20
Keystone, A181, Steel.....	.20
Keystone, A182, Steel.....	.20
Keystone, A183, Steel.....	.20
McCormick, M556, Malleable...	.20
McCormick, M557, Malleable...	.20
McCormick, M558, Malleable...	.20
McCormick, M147, Steel.....	.20
McCormick, M304, Steel.....	.20

NAME	Price Each
McCormick, M315, Steel.....	\$0.20
McCormick, M316, Steel.....	.20
Milwaukee, PJ9, Malleable.....	.20
Milwaukee, PJ9½, Malleable....	.20
Milwaukee, PH34, Malleable....	.20
Milwaukee, PM34, Malleable....	.20
Milwaukee, PM35, Malleable....	.20
Milwaukee, PL9, Malleable....	.20
Milwaukee, PL9½, Malleable...	.20
Piano, J466, (For head J429)	
Steel, .....	.20
Piano, J467, (For head J429)	
Steel, .....	.20
Standard, (See Emerson.)	
Wood, 5487, Steel.....	.20
Wood, 5488, Steel.....	.20
Wood, 5491, Steel.....	.20
Wood, 5492, Steel.....	.20
Wood, 2297, Malleable.....	.20
Wood, 2298, Malleable.....	.20
Wood, 2299, Malleable.....	.20
Wood, 2300, Malleable.....	.20
Wood, 2306, Malleable.....	.20

Wood Pitmans

With or Without Box and Bolts



Will Fit the Following Machines:

NAME	Price Each
Champion (Binder), N859.....	\$0.60
Dain (Mower), Z3601, without box and bolt.....	1.50
Same with box and bolt.....	2.00
Deering (Binder), H2194.....	.50
Deering (Ideal Mower), 1898 to 1900, D1153 with box and bolt.....	2.00
Deering (Ideal Mower), 1901 and since, D1471 with box and bolt.....	2.00
Emerson, complete, no box or bolts.....	1.50
Keystone, 1902 and since, no box or bolts.....	1.50
McCormick (Mower), 1890 and since, M392, without box and bolt.....	1.50
Same with box and bolt.....	2.00
McCormick (Mower), (1888-1890) short, M319, without box and bolt.....	1.50
Same with box and bolt.....	2.00
Milwaukee (No. 6 Mower), 1894 and since, PN290, without box and bolt.....	1.50
Same with box and bolt.....	2.00
Milwaukee (No. 5 Mower), PV290.....	1.50
Same with box and bolt.....	2.00
Milwaukee (Binder), S713.....	.60
Osborne (Binder), J190, 1895 and since.....	.50
Plano (Jones Mower), 1901 and since, 7394, without box and bolt.....	1.50
Same with box and bolt.....	2.00
Plano, 7825, (for Head J429,) complete, no box or bolts.....	2.00
Plano (Binder 6049), 1895 and since.....	.75

Pitman Woods

Finished and Bored, Without Straps, Bolts or Boxes



Will Fit the Following Machines:

NAME	Price Each
Dain (Mower Z3600)	\$0.40
Deering (Ideal Mower), D1470.....	.40
Deering (Mower), (1898-1900) D1155.....	.40
Emerson .....	.40
Keystone, 1902 and since.....	.40
McCormick (No. 4 Mower), M393, 1896 and since.....	.40
McCormick (No. 4 Mower), (1888-1900) short, M319.....	.40
Milwaukee (No. 5 Mower), PV301, 1897 and since.....	.40
Milwaukee (No. 6 Mower), PN301, 37x9-16 in., 1894 and since.....	.40
Plano (Jones Mower), 7387, 1894 and after.....	.40
Plano (Jones Vertical), 7818, 1901 and after.....	.40

Knife Clips

We illustrate below a few of the many patterns we can supply.
For complete list and prices see page 118.



ACME T4



BUCKEYE. 297

BUCKEYE,
715CHAMPION,
A468

CROWN, B40



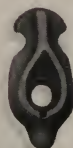
DAIN. Z6

DEERING
E461

DEERING, F92



DEERING, F94

EMERSON,
M106McCORMICK,
H496McCORMICK,
M463MILWAUKEE,
PJ1

OSBORNE, K256



PLANO, J325



WOOD, 1432

Knife Clips



Will Fit the Following Machines

NAME	Price Each
Acme T4	\$0.10
Buckeye (New Model), No. 715..	.10
Buckeye (Akron), No. 238.....	.10
Buckeye, 857 .....	.10
Buckeye, 297 .....	.10
Champion, A866, .....	.10
Champion, A413, .....	.10
Champion, A468, or A467.....	.10
Champion, A693 .....	.10
Crown, B2 .....	.10
Crown, B40 .....	.25
Clipper (See Triumph.)	
Dain, Z6 .....	.10
Deering, F94 .....	.10
Deering, E461 .....	.10
Deering, F92 .....	.10
Deering, D467 .....	.25
Deering, D595 .....	.25
Emerson, B40 or M106 .....	.10
Emerson, Z95 .....	.10
Emerson, M111 .....	.10
Esterly, M73A .....	.10
Esterly, M78 .....	.10
Empire, 426 .....	.40
McCormick, M254 .....	.10

NAME	Price Each
McCormick, M463	\$0.10
McCormick, M290 .....	.15
McCormick, M293 .....	.15
McCormick, M533 .....	.10
McCormick, L39 .....	.10
McCormick, H496 .....	.10
McCormick, H919 .....	.10
McCormick, M652 .....	.15
Milwaukee, J1 .....	.10
Manny, J. P. No. B.....	.10
Osborne, E36 .....	.10
Osborne (Columbia), K256.....	.20
Plano, J455 .....	.25
Plano, J46 .....	.10
Plano, J106 .....	.10
Plano, J325 .....	.10
Red, White and Blue, No. 538....	.10
Standard. (See Emerson.)	
Tiger, M14 .....	.10
Triumph, or Clipper, 91CM.....	.10
Triumph, or Clipper, 138C.....	.10
Triumph, or Clipper, A1.....	.10
Triumph, or Clipper, 95CM.....	.25
Wood, 171 .....	.10
Wood, 1432 .....	.10

Wearing Plates



Will Fit the Following Machines

NAME	Price Each
Champion, H315, Under Shoe Cap.	\$0.15
Champion, H282, Under Clips....	.15
Dain, Z3006, Under Clips.....	.15
Dain, Z3007, Under Shoe Cap..	.15
Deering, D1038, Under Clips ....	.15
Deering, D1040, Under Shoe Cap..	.15
Deering, D1455, Under Shoe Cap..	.15
Keystone, A192, Under Clips.....	.15
Keystone, A193, Under Cap .....	.15
McCormick, M468, Under Clips...	.15

NAME	Price Each
McCormick, M490, Under Shoe Cap	\$0.15
Milwaukee, PK156, Under Clip PJ1 .....	.15
Milwaukee, PG157, Under Shoe Cap .....	.15
Osborne, K325, Under Clips.....	.15
Osborne, K326, Under Shoe Cap..	.15
Plano, 7094, Under Clips.....	.15
Plano, 7095, Under Shoe Cap....	.15

PRICE LIST

Link Chain Belting

In Effect August 1st, 1906

No.	Plain Chain, per Foot. List.	Couplers, per Pair.	Approximate Links in 10 Ft.	Average Ultimate Strength, Pounds.	No.	Plain Chain, per Foot. List.	Couplers, per Pair.	Approximate Links in 10 Ft.	Average Ultimate Strength, Pounds.
05	\$0 23	.....	72	2900	47	\$0 14	.....	74	1700
10	1 50	.....	242	240	48	13	.....	60	1660
20	23	.....	212	330	49	17	.....	74	1960
22	21	.....	240	340	50	16	.....	88	1900
023	16	.....	170	340	51	17	\$0 16	104	1900
23	16	.....	185	460	051	24	.....	152	1800
024	14	.....	133	700	51 Friction	30	.....	104	1900
25	11	\$0 11	133	700	52	18	16	80	2300
025	14	.....	120	670	052	21	.....	80	2300
027	13	12	129	680	52½ Light	16	.....	80	2260
28	13	.....	74	673	52½ Heavy	24	.....	79	2866
029	76	.....	130	2380	53 Keeper	18	.....	90	2200
32	11	14	104	1100	054	17	.....	80	1800
032	23	.....	133	1072	54	16	.....	82	1880
32½	16	.....	104	1640	55	16	16	74	2200
33	11	13	86	1190	055	18	.....	74	2100
34	11	13	86	1300	55 Keeper	18	.....	74	2200
34½	14	.....	104	1150	B55	22	.....	73	2250
35	11	16	74	1200	55½	18	.....	74	2040
36½ Light	15	.....	80	1230	056	24	.....	80	2570
36½ Heavy	17	.....	80	1314	56	17	.....	74	2070
37	11	.....	60	1230	56½	26	.....	72	2450
38	11	.....	60	1260	57	18	19	52	2800
42	12	16	88	1500	057	18	.....	74	1920
42 Keeper	14	.....	88	1500	058	30	.....	80	2580
44	12	16	81	1580	58	18	.....	75	2250
45	11	16	74	1600	62	22	22	73	3100
45 Keeper	11	.....	74	1600	062	25	.....	73	....

Continued on next page.

PRICE LIST LINK CHAIN BELTING—Continued

No.	Plain Chain, per Foot. List.	Couplers per pair.	Approximate Links in 10 Ft.	Average Ultimate Strength, Pounds.	No.	Plain Chain, per Foot. List.	Couplers per pair.	Approximate Links in 10 Ft.	Average Ultimate Strength, Pounds.
62 'C' Cpler	.....	.....	73	3100	88	\$0 43	\$0 28	46	5750
62 Keeper	\$0 24	.....	73	3100	88½	59	.....	46	7200
062½	23	.....	72	2500	89	52	.....	46	5500
62½	23	.....	73	3100	92	78	.....	37	4500
063	25	\$0 22	80	2330	93	49	44	30	7500
63 Keeper	22	.....	59	3060	93 Keeper	49	.....	30	7500
64	23	.....	59	2950	95	53	54	30	8700
65	18	.....	57	2460	101	58	55	45	7530
66	23	22	60	2600	103	67	58	39	9600
66B	39	.....	60	3760	104	1 01	90	30	12200
67	23	22	52	3300	105	49	66	20	6900
68	20	.....	73	2390	106	87	.....	20	12200
071	42	.....	59	5570	107	62	.....	20	7100
71	32	.....	73	4370	108	63	79	25½	9900
071½	32	.....	58	5400	108 Keeper	63	.....	25½	9900
71½	29	31	60	3350	109	87	.....	20	5500
072	35	31	73	4340	110	74	92	25½	12700
72	29	.....	59	4240	114	85	84	37	11000
072½	34	.....	72	4300	115	94	.....	37	12700
72½	37	32	73	5990	116	97	.....	37	10200
73	32	.....	38	3400	116½	1 05	.....	37	12650
074	62	.....	50	4950	116¾	1 31	.....	37	13850
74	25	.....	38	4865	117	1 01	.....	37	14400
75	24	19	46	4000	118	1 09	.....	37	11000
075	30	.....	58	4590	122	1 13	1 58	20	15000
75½	23	.....	46	.....	123	1 16	.....	36	13280
76	31	.....	52	3550	124	1 03	1 19	30	12700
76½	25	20	58	3890	130	1 56	.....	34	18550
77	25	22	52	3600	146	1 02	1 29	20	14000
77½	36	.....	52	4600	E1	25	.....	59	3900
78	34	25	46	4900	L-111	16	.....	74	1200
78 Keeper	34	.....	46	4900	SE1	23	38	34.3	2900
83	35	32	30	4950	3 Bar	31	.....	79	2400
83 Keeper	35	.....	30	4950	4 Bar	24	.....	75	2200
85	44	44	30	7600					

PRICE LIST OF Attachments for Link Chain Belting

In Effect August 1st, 1906

For Illustrations see pages 133 and 134

No. 05		Price per foot	No. 25—Cont'd		Price per foot	No. 25—Cont'd		Price per foot
C-1.	.....	\$0.39	C-1.	.....	\$0.29	M-30	.....
E-1	.....	.34	C-3	.....	.58	O-1	.....	\$0.23
G-27	.....	.41	C-4	.....	.19	O-2	.....	.27
S-5	.....	.37	C-5	.....	.51	R-4	.....	.26
No. 10			C-25	.....	.24	R-6	.....	.22
A-3	.....	2.00	C-26	.....	.43	R-9	.....	.25
A-89	.....	2.00	D-3	.....	.26	R-10	.....	.30
B-2	.....	2.00	D-15	.....	.16	R-11	.....	.28
E-1	.....	2.00	D-22	.....	.17	R-12	.....	.34
K-5	.....	2.00	D-23	.....	.17	R-14	.....
No. 20			D-27	.....	.18	R-15	.....
E-1	.....	.33	D-28	.....	.17	R-16	.....	.30
No. 22			D-33	.....	.18	R-22	.....	.23
R-4	.....	.40	D-36	.....	.24	R-25	.....
R-39	.....	.32	D-46	.....	.21	R-26	.....	.18
No. 023			D-51	.....	.20	R-27	.....	.22
D 61	.....	.38	D-60	.....		R-28	.....	.28
No. 23			D-65	.....	.26	R-29	.....	.22
N-4	.....		E-1	.....	.21	R-31	.....	.28
N-5	.....		E-1 No Hole	.....		R-32	.....	.25
No. 024			E-3	.....	.36	R-33	.....	.25
C-1	.....	.27	E-5	.....	.32	R-34	.....	.25
No. 025			E-11	.....	.16	R-35	.....	.22
A-3	.....		E-14	.....	.23	R-36	.....	.33
No. 25			E-16	.....	.28	R-40	.....	.23
A-1	.....	.21	EK	.....	.36	R-41	.....	.27
A-3	.....	.22	E-Stud	.....	.24	R-42	.....	.23
A-3 Heavy	.....		E-Stud Reversed	.....	.30	R-43	.....	.22
A-30	.....	.18	G-1	.....	.28	R-44	.....	.19
A-39	.....	.20	G-30	.....	.33	R-45	.....
A-40	.....	.24	H-2	.....	.28	R-46	.....	.19
A-46	.....	.15	H-16	.....	.41	R-47	.....	.23
A-48	.....	.21	H-23	.....	.25	R-48	.....	.22
A-51	.....	.20	I-3	.....	.34	R-49	.....	.22
A-71	.....	.20	K-1	.....	.26	R-51	.....	.20
A-85	.....	.31	K-5	.....	.23	R-52	.....	.25
A-86	.....	.48	K-6	.....	.29	R-53	.....	.42
A-91	.....	.21	K-6 No Hole	.....		R-54	.....
A-94	.....	.20	K-40	.....	.75	R-55	.....	.29
A-103	.....	.18	KI-1	.....		R-56	.....	.25
A-108	.....	.20	KL-1	.....	.31	R-57	.....	.27
			L-19	.....	.21	R-58	.....	.35
			L-20	.....	.23	R-59	.....	.25
			M-1	.....	.27	R-60	.....
			M-4	.....	.38	R-61	.....

Price List of Attachments—Continued

Price per foot		Price per foot		Price per foot	
No. 25—Cont'd		No. 32—Cont'd		No. 34	
R-62.....	\$0.23	K-1.....	\$0.30	A-1.....	\$0.21
R-64.....	.30	K-3.....	.39	A-52.....	.28
R-65.....	.22	K-5.....	.23	C-1.....	.33
R-67.....	.20	K-6.....	.38	C-2.....	.37
R-68.....	.21	K-18.....		C-6.....	.32
R-69.....	.20	K-36.....	.32	C-15.....	.32
R-70.....	.29	K-36, $\frac{1}{2}$ " long.....		C-35.....	.56
R-71.....	.23	K-36, $\frac{1}{2}$ " long.....		D-44.....	.28
R-72.....	.25	L-1.....	.27	E-1.....	.24
R-73.....	.34	L-18.....	.14	E-1 Coupler, pair.....	.24
R-74.....	.23	L-19.....	.18	I-30.....	.23
S- $\frac{1}{2}$.....	.24	L-20.....	.23	I-32.....	.28
S-1.....	.27	M-1.....	.32	K-1.....	.29
U.....	.20	S-1.....	.26	K-31.....	.37
Up.....	.46	U.....	.19	K-37.....	.49
Elevator Bar.....		Stud.....		K-38.....	.51
				U.....	.11
				Scraper No. 11, ea.....	.09
No. 25$\frac{1}{2}$		No. 32$\frac{1}{2}$		No. 35	
Conveyor Bar No. 1.....		L-16.....	.25	A-1.....	.23
Conveyor Bar No. 2.....				A-2.....	.32
No. 027		No. 33		A-10.....	.24
A-1.....	.25	A-1.....	.17	A-13.....	.27
A-51.....	.23	A-1 No Hole.....		A-21.....	
K-1.....	.25	A-6.....	.22	A-29.....	.27
No. 029		A-13.....	.22	C-1.....	.32
A-39.....		A-29.....	.26	D-9.....	.35
No. 29		A-107.....	.30	E-1.....	.25
G-28.....		D-3.....	.39	E-18.....	.16
No. 032		D-11.....	.67	G-27.....	.28
A-85.....	.42	D-16.....	.72	I-31.....	.69
A-86.....	.50	D-31.....		K-1.....	.32
L-16.....		E-1.....	.18	K-1 Small Hole.....	
No. 32		E-1 Coupler, pair.....	.22	K-5.....	.30
A-1.....	.24	E-4.....		L-1.....	.28
A-2.....	.25	EM-1.....	.28	S-1.....	.25
A-3.....	.21	EM-2.....	.30	Scraper No. 1, ea.....	.08
A-12.....	.27	H-2.....	.26	Scraper No. 21, ea.....	.08
A-13.....	.37	I-3.....	.33		
A-18.....	.21	I-28.....		No. 036	
A-19.....	.32	K-1.....	.25	E-1.....	
A-50.....	.47	K-3.....	.39	I-32.....	
C-1.....	.32	K-5.....	.25	No. 37	
C-5.....	.38	K-6.....	.35	K-5.....	.27
C-36.....		K-11.....	.41	L-3.....	.25
D-3.....	.27	K-12.....	.25	L-8.....	.34
D-24.....		K-13.....	.51	L-11.....	.35
D-31.....	.22	L-20.....	.23	L-12.....	.28
D-46.....	.16	M-1.....	.29	L-14.....	.32
E-1.....	.21	M-1 No Hole.....		L-22.....	
E-1 No Hole.....		M-39.....		S-1.....	
EK.....	.31	S-1.....	.25	No. 38	
G-1.....	.25	Elevator Bar No. 1.....		A-3.....	
I-3.....	.30	Elevator Bar No. 2.....		C-9.....	.37
I-21.....	.18	Scraper No. 14, ea.....	.13	E-1.....	.21
				E-Pin.....	.73
		No. 034		K-40.....	
		I-32.....			

Price List of Attachments—Continued

No. 42	Price per foot	No. 45—Cont'd	Price per foot	No. 45—Cont'd	Price per foot
A-1.....	\$0.21	A-74.....	\$0.22	L-3.....	\$0.24
A-3.....	.32	A-93.....	.38	L-10.....	.74
A-6.....	.21	A-109.....	.21	L-11.....	
A-14.....	.34	A Strap.....		L-13.....	.19
A-29.....	.25	C-1.....	.27	L-17.....	.28
A-36.....	.25	C-1 Square Hole.....		M-1.....	.25
A-67.....		C-9.....	.28	M-1 Old Style.....	
A-84.....	.29	C-15.....	.34	M-4.....	.40
C-1.....	.29	C-27.....	.38	M-7.....	
C-1 Small Hole.....		C-28.....	.42	M-9.....	
C-18.....	.31	C-34.....	.60	M-24.....	.25
D-2.....	.28	C-37.....	.29	M-36.....	.61
E-1.....	.20	C-38.....	.40	N-1.....	.17
G-27.....	.36	C-43.....		N-3.....	.22
I-3.....		D-1.....	.58	P-1.....	.43
I-11.....	.24	D-3.....	.34	S-1.....	.23
I-13.....	.22	D-5.....	.32	S-4.....	.26
K-1.....	.26	D-6.....	.32	S-5.....	.24
K-3.....	.37	D-10.....		S-6.....	.24
K-3½.....	.70	D-17.....		Scraper No. 1, ea.....	.08
K-5.....	.24	D-18.....	.25	Scraper No. 2, ea.....	.07
K-5 Small Hole.....		D-39.....	.29	Scraper No. 6, ea.....	.11
K-6.....	.37	D-39 Roller.....		Scraper No. 7, ea.....	.09
L-24.....		D-40.....	.25	Scraper No. 8, ea.....	.06
M-2.....	.39	D-42.....	.25	Scraper No. 9, ea.....	.08
S-1.....	.25	D-43.....	.30	Scraper No. 10, ea.....	
S-3.....	.27	D-45.....	.18	Scraper No. 22, ea.....	.08
W-2.....		D-68.....		Scraper No. 23, ea.....	
Scraper No. 6, ea.....	.04	E-1.....	.21	Scraper No. 24, ea.....	.09
Rake.....		E-1 No Hole.....		Scraper No. 27, ea.....	
Rake Head, ea.....	.11	E-4.....	.18	Strap.....	.21
No. 42 Keeper		E-7.....		Flight.....	
E-1.....	.23	E-12.....	.14	Tube..... each	.05
No. 44		E-21.....	.18		
A-3.....	.25	F-2.....	.27	No. 47	
K-1.....	.30	G-1.....	.23	C-5.....	.36
K-5.....	.31	G-23.....	.26	C-15.....	
K-59.....	.35	G-27.....	.32	C-33.....	.41
No. 45		G-34.....	.35	L-3.....	.24
A-1.....	.20	H-2.....	.35	L-4.....	.37
A-1 No Hole.....		I-3.....	.30	Scraper No. 6, ea.....	.07
A-1 Coupler, pair.....	.26	I-12.....	.28	No. 48	
A-2.....	.25	I-15.....	.28	A-3.....	.27
A-3.....	.28	I-16.....	.25	A-4.....	
A-3 Old Style.....	.28	I-17.....	.48	A-69.....	.25
A-3 No Hole.....		I-19.....		A-77.....	.26
A-10.....	.20	K-1.....	.26	B-1.....	.57
A-10 Heavy.....		K-1 Large Hole.....		B-2.....	.51
A-12.....	.25	K-1 Coupler, pair.....	.31	C-29.....	.32
A-13.....	.25	K-3.....	.34	D-1.....	.42
A-14.....	.31	K-5.....	.25	D-21.....	.59
A-20.....	.23	K-6.....	.36	I-2.....	.54
A-26.....	.21	K-34.....	.26	K-1.....	.39
A-27.....	.27	K-40.....	.43	V-3.....	.28
A-29.....	.22	K-44.....	.27	No. 49	
A-37.....	.31	K-45.....	.47	K-1.....	
A-49.....	.37	K-48.....	.34	K-1 Old.....	.30
A-60.....		K-64.....		No. 50	
A-73.....	.29	KC.....		A-1.....	.24
		L-2.....	.22	A-61.....	.32

Price List of Attachments—Continued

Price per foot		Price per foot		Price per foot	
No. 50—Cont'd		No. 52—Cont'd		No. 55—Cont'd	
D-49.....	\$0.65	C-41.....		C-39.....	
D-50.....	.97	C-42.....	\$0 30	C-40.....	
D-58.....	1.00	D-2.....		CC.....	
D-59.....	.70	D-3.....		Channel No. 1...	
D-62.....	1.21	D-4.....	.63	Channel No. 2...	
D-63.....	.83	D-5.....	.45	D-3.....	\$0.53
D-66.....		D-13.....	.40	D-6.....	
D-67.....		D-34.....	.41	D-31.....	
D-69.....		D-52.....		D-41.....	.66
K-3½.....	.67	E-1.....	.33	D-42.....	.34
No. 51		F-2.....	.43	D-43.....	.36
A-1.....	.25	F-13.....	.58	E-1.....	.25
A-96.....	.39	G-1.....	.32	E-5.....	
C-1.....		I-2.....	.47	EA-3.....	.32
C-14.....	.52	K-1.....	.35	F-2.....	.35
C-17.....	.32	K-5.....	.32	G-2.....	.20
C-21.....	.41	K-5 No Hole.....		G-26.....	.33
C-44.....		K-41.....	.32	G-27.....	.35
D-4.....	.69	K-46.....	.32	G-27 Two Holes	
D-5.....	.43	L-13.....		G-34.....	.37
D-35.....	.77	R-4.....		I-26.....	.30
D-37.....	.82	R-19.....	.25	I-33.....	
D-38.....	.61	R-30.....	.25	K-1.....	.28
D-47.....	.52	R-63.....		K-1 No Hole.....	
D-48.....	.95	Rope Socket 1,ea.	.18	K-5.....	.30
D-54.....	.88	Rope Socket 2,ea.	.18	K-10.....	.32
D-54 Old Style ..		Scraper No. 19,ea.	.10	K-17.....	.40
D-55.....	.86	Swivel.....each	.13	K-28.....	.35
D-57.....	1.03	Swivel and Eye		K-39.....	.30
D-70.....	.36	No. 53 Keeper		K-39 Old Style...	
I-5.....	.42	A-3.....	.41	K-40.....	.60
I-6.....	.32	C-1.....	.32	K-45.....	.70
I-24.....	.56	E-1.....	.28	K-49.....	.39
I-25.....	.56	K-3.....	.51	K-52.....	.32
I-32.....	.41	S-1.....	.30	K-52 Coupler,pair	
I-34.....	.35	No. 54		K-56.....	.30
I-35.....	.51	Elev.Bar,No.1,ea.	.23	K-60.....	.67
K-1.....	.32	Elev.Bar No.2,ea.	.22	K-62.....	.27
K-5.....	.33	No. 55		K-66.....	
K-7.....	.43	1-A.....	.41	KC.....	
K-28.....	.33	2-A.....	.24	L-2.....	.25
L-23.....		5-A.....	.55	L-2 Web.....	.27
R-24.....	.28	A-1.....	.25	L-10.....	.70
R-53.....		A-2.....	.32	L-13.....	
S-1.....	.28	A-2 Square Hole.		L-21.....	.30
T-1.....		A-2 No Hole.....		L-25.....	.25
No. 52		A-3.....	.32	M-1.....	.28
A-1.....	.28	A-20.....	.26	M-1 No Hole.....	
A-1 No Hole.....		A-41.....	.42	M-5.....	.55
A-1 Coupler.....		A-59.....		M-17.....	.32
A-3.....	.34	A-68.....	.35	M-37.....	
A-14.....	.59	A-99.....	.44	R-45.....	.25
A-17.....	.28	A-104.....	.44	S-1.....	.25
A-78.....		C-1.....	.31	S-5.....	.30
B-3.....		C-5.....	.43	Scraper No.19,ea.	.11
C-1.....	.33	C-8.....	.45	Scraper No.20,ea.	.08
C-2.....	.43	C-20.....	.56	Scraper No.23,ea.	.05
C-4.....		C-33.....	.47	Scraper No.25,ea.	.05
C-10.....		C-37.....	.45	Swivel.....each	.15
				Swivel and Eye,ea.	.16

Price List of Attachments—Continued

	Price per foot		Price per foot		Price per foot
No. 55 Keeper		No. 62		No. 66-B	
A-2.....	\$0.32	A-1.....	\$0.32	F-2.....	\$0.75
A-41.....	.48	A-1 Coupler, pair.....	.39	H-1.....	.67
A-41 Countersunk		A-2.....	.33	K-1.....	
C-5.....		A-3.....	.34		
		A-12.....	.39	No. 67	
No. 55½		A-39.....	.45	A-1.....	.32
A-25.....	.33	A-45.....	.25	A-1 Coupler.....	.48
A-41.....	.43	A-58.....	.39	A-7.....	.37
		A-77.....		A-7 Coupler, pair.....	.48
No. 56½		A-92.....	.35	A-11.....	.34
A-25.....	.42	C-1.....	.39	A-72.....	.51
A-95.....	.54	C-5.....	.58	D-5.....	.43
		C-8.....	.35	D-17.....	.39
No. 057		D-5.....	.45	D-26.....	.45
A-2.....	.32	D-53.....	.69	E-1.....	.37
G-26.....	.31	D-64.....		F-2.....	.48
G-33.....		E-4.....	.27	FF.....	.49
L-3.....	.25	E-5.....		G-1.....	.50
L-4.....	.37	E-5 With Hole.....		G-13.....	.36
		E-22.....		H-1.....	.50
No. 57		G-1.....	.46	H-19.....	.53
A-1.....	.30	G-22.....		K-1.....	.40
A-3.....	.33	G-27.....	.39	K-20.....	.37
A-7.....	.30	H-17.....		KC.....	
A-8.....	.27	I-3.....	.43	RA-1.....	
A-21.....		J-1.....	.53	S-2.....	.35
A-31.....	.44	K-1.....	.35	Rope Socket 1, ea.....	.21
A-60.....	.43	K-5.....	.33	Rope Socket 2, ea.....	.21
C-1.....	.30	K-40.....	.42	Scraper No. 17, ea.....	.08
C-4.....	.21	L-4.....	.42	Scraper No. 18, ea.....	.07
D-3.....		M-17.....	.34		
D-5.....	.37	S-1.....	.32	No. 70	
D-25.....	.25	No. 62 "C" Coupler		D-7.....	
D-25 Dog.....		C-5.....		E-70.....	
E-1.....	.27	V-1.....	.52	R-1.....	
E-1 Strengthened		V-2.....	.60		
E-7.....		No. 62 Keeper		No. 73	
E-10.....	.33	A-41.....		F-2.....	
E-26.....				FF.....	
EA-1.....	.39	No. 62½		S-2.....	.46
EA-2.....	.33	A-3.....			
F-2.....	.43	A-3 No Hole.....	.36	No. 074	
F-9.....	.76			K-1.....	1.18
H-2.....	.44	No. 65		No. 74	
H-15.....	.51	B-1.....	.53	K-8.....	.75
I-36.....		B-2.....	.57		
K-1.....	.35	C-29.....	.32	No. 75	
K-22.....	.41	M-16.....		A-23.....	.59
M-15.....	.52			A-34.....	.37
S-2.....	.32	No. 66		A-34 No Hole.....	
S-8.....		C-1.....	.40	C-4.....	.29
Scraper No. 12, ea.....	.07	E-4.....	.42	E-1.....	.36
Scraper No. 13, ea.....	.07	I-1.....	.40	H-1.....	.45
Tube..... each	.05	K-1.....	.48	H-2.....	.45
		K-15.....	.38	H-3.....	.51
No. 59		L-16.....	.48	H-4.....	.62
A-23.....	.27	R-18.....	.33	H-25.....	.48
A-87.....	.25	Rope Socket 2, ea.....	.20	K-1.....	.39
				M-3.....	.65

Price List of Attachments—Continued

	Price per foot		Price per foot		Price per foot
No. 75—Cont'd		No. 78—Cont'd		No. 88	
R-1.....	\$0.29	G-19.....	\$0.66	A-1.....	\$0.70
R-2.....	.29	G-25.....	1.38	A-3.....	.70
R-8.....	.34	H-2.....	.70	A-7.....	.63
R-50.....	.46	H-6.....	1.01	A-7 Coupler.....	
No. 76		H-6 Top.....		A-11.....	.60
D-1.....		H-22.....	1.03	A-28.....	1.10
No. 76½		K-1.....	.47	A-88.....	
E-1.....		K-54.....	.71	A-100.....	.77
No. 77		K-55.....	.57	A-100 Coupler, pr.	.73
A-1.....	.37	L-6.....	.63	A-106.....	.68
A-12.....	.55	M-3.....	.70	C-1.....	.77
A-23.....	.49	M-3 Strengthened		D-5.....	.67
A-97.....	.38	M-35.....	1.21	DH.....	1.30
D-5.....	.42	M-35 Roller.....		E-1.....	.64
E-1.....	.38	R-1.....	.42	F-2.....	.80
F-2.....	.64	R-3.....	.50	F-6.....	.90
G-1.....	.48	R-8.....	.45	F-8.....	.89
G-1 Socket.....		R-20.....	.62	F-11.....	1.19
G-5.....	.64	R-37.....	.41	FF.....	.75
G-6.....	.51	R-38.....	.41	G-1.....	.66
G-19.....	.51	S-2.....	.52	G-6.....	.73
G-32.....	.50	No. 79		G-8.....	.72
H-1.....	.48	E-1.....		G-10.....	1.23
H-2.....	.51	EK.....		G-12.....	
H-2 Old Style....		K-1.....		G-14.....	.64
H-3.....	.56	No. 83		G-19.....	.81
K-1.....	.42	A-1.....	.81	G-25.....	1.37
K-8.....	.45	D-5.....	.67	G-29.....	.91
K-21.....	.99	E-1.....	.57	H-1.....	.76
L-2.....		E-13.....	.76	H-2.....	.78
L-20.....	.40	E-17.....	.76	H-5.....	.92
M-10.....	.55	F-15.....	.66	H-6.....	1.15
M-33.....	.86	F-15 Coupler.....		H-9.....	.64
R-1.....	.32	FF.....	.88	K-1.....	.61
R-3.....	.36	G-1.....	.74	K-5.....	.91
S-2.....	.39	G-24.....	.74	K-26.....	1.30
No. 78		M-3.....	.75	K-61.....	.86
A-3.....	.59	W-2.....	1.55	K-61 Coupler, pr.	.81
A-7.....	.55	No. 83 Keeper		M-30.....	
A-7 Coupler, pair	.52	G-1.....	.74	R-1.....	.51
A-11.....	.50	No. 85		R-2.....	.51
A-11 Coupler, pair	.49	D-5.....	.74	R-8.....	.54
A-16.....	.85	E-2.....	.72	R-13.....	.64
A-23.....	.58	F-1.....	.98	S-2.....	.62
A-33.....	.62	F-2.....	.92	S-7.....	.74
A-63.....	.61	F-5.....	.92	No. 88½	
A-70.....	.56	FF.....	.81	F-2.....	1.00
A-72.....	.60	G-6.....	.71	K-1.....	.83
A-88.....	.58	H-1.....	.72	No. 92	
A-102 Coupler, pr.	.54	H-2.....		F-2.....	1.40
D-5.....	.65	K-2.....	.72	No. 93	
E-1.....	.47	K-4.....	.80	A-64.....	1.40
F-2.....	.70	K-7.....	.73	F-15.....	.91
F-4.....	.71	M-3.....	.78	F-15 Coupler.....	
FF.....	.73	S-2.....	.64	G-1.....	.90
G-1.....	.59	S-2 Old Style....			
G-6.....	.68	Scraper No. 5, ea.	.25		

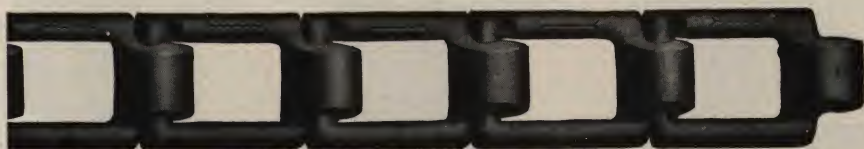
Price List of Attachments—Continued

No. 95		Price per foot
A-22.....		\$0.73
F-2.....		1.10
F-2 Old Style....		
H-1.....		.86
K-2.....		.84
K-29.....		2.06
No. 101		
A-3.....		.86
G-6.....		.81
K-1.....		.80
No. 103		
A-1.....		.91
A-3.....		1.02
A-4.....		.94
A-4 Coupler, pair.		.97
A-5.....		.99
A-11.....		.91
A-11 Coupler, pr.		1.08
A-22.....		.96
A-24.....		.98
A-102 Coupler, pr.		1.10
D-5.....		1.02
D-56.....		1.38
DD.....		1.40
E-1.....		.94
E-1 No Hole.....		
F-1.....		1.00
F-2.....		1.11
F-7.....		1.30
F-8.....		1.26
G-6.....		1.13
G-10.....		1.13
G-19.....		1.09
G-29.....		1.33
H-2.....		1.02
H-6.....		1.76
H-6 Top.....		
H-12.....		1.18
H-13.....		1.29
H-14.....		1.35
K-1.....		.95
K-1 Round Hole..		
K-1 Coupler, pr..		.97
K-1 No Hook.....		
K-2.....		.99
K-8.....		.96
K-19.....		1.57
K-57.....		2.01
No. 103—Cont'd		Price per foot
K-63.....		\$1.54
L-1.....		
M-1.....		
M-3.....		1.16
M-11.....		.97
MK.....		1.85
R-1.....		.82
R-3.....		.90
No. 104		
K-2.....		1.46
K-33.....		1.44
No. 105		
F-1.....		.69
H-2.....		.92
H-4.....		1.55
H-24.....		1.52
H-26.....		1.60
K-2.....		.97
K-4.....		.67
M-3.....		1.14
No. 106		
K-2.....		1.39
K-4.....		1.27
No. 107		
D-8.....		
F-1.....		.75
M-1.....		
No. 108		
F-2.....		1.18
F-3.....		1.04
FF.....		1.12
G-1.....		.97
K-2.....		1.02
K-2 Old Style....		
K-25.....		1.47
K-42.....		1.62
No. 108 Keeper		
G-1.....		.97
No. 109		
H-21.....		1.47
No. 110		Price per foot
F-2.....		\$1.27
K-2.....		1.12
No. 114		
A-11.....		1.06
C-1.....		1.22
C-7.....		1.69
D-5.....		1.46
DD.....		1.55
F-8.....		1.33
F-12.....		1.66
G-6.....		1.66
K-1.....		1.21
K-2.....		1.27
M-3.....		1.25
No. 122		
F-2.....		1.58
K-2.....		1.66
M-3.....		
M-32.....		4.40
No. 124		
A-4.....		1.40
A-11.....		1.45
C-13.....		2.03
F-2.....		1.54
F-8.....		1.84
G-1.....		1.47
G-6.....		1.58
G-19.....		1.44
K-1.....		1.56
M-3.....		1.59
R-1.....		
No. 146		
E-2.....		1.37
E-29.....		1.57
F-2.....		1.49
F-5.....		1.46
K-2.....		1.76
K-4.....		1.46
No. 3 Bar		
K-3 Short.....		.63
K-3 Long.....		.63
K-47.....		
No. 4 Bar		
L-3.....		.37
L-15.....		.95

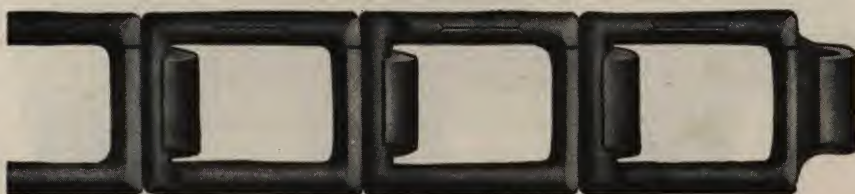
Standard Sizes Link Chain Belting

Approximately Full Size

For list prices see pages 120 and 121



No. 25. Approximate links in 10 feet, 133.



No. 32. Approximate links in 10 feet, 104.



No. 33. Approximate links in 10 feet, 86.



No. 34. Approximate links in 10 feet, 86.



No. 42. Approximate links in 10 feet, 88.

STANDARD SIZES LINK CHAIN BELTING—Con'd**APPROXIMATELY FULL SIZE**

For list prices see pages 120 and 121



No. 45. Approximate links in 10 feet, 74.



No. 52. Approximate links in 10 feet, 80.



No. 55. Approximate links in 10 feet, 74.



No. 62. Approximate links in 10 feet, 73.

STANDARD SIZES LINK CHAIN BELTING—Con'd**APPROXIMATELY FULL SIZE**

For list prices see pages 120 and 121



No. 072. Approximate links in 10 feet, 73.



No. 72. Approximate links in 10 feet, 59.



No. H567. Approximate links in 10 feet, 56.

STANDARD SIZES LINK CHAIN BELTING—Con'd**APPROXIMATELY FULL SIZE****For list prices see pages 120 and 121****No. 72½.**

Approximate links in 10 feet, 73.

**No. 76½.**

Approximate links in 10 feet, 52.

Attachments for Link Chain Belting

For list prices see pages 122 to 128



A 1



A 2



A 3



A 4



A 5



A 7



A 12



A Strap



C 1



C 2



C 12



E 1



E 2



K 1



K 2

Continued on next page.

ATTACHMENTS FOR LINK CHAIN BELTING—Continued

For list prices see pages 122 to 128

**K 3****K 4****K 5****K 6****4 Bar-L3****S 1****S 2****Coupling Link**

For price list of Couplers see pages 120 and 121



No. 1.



No. 3.



No. 2.



LITHO OILER



No. 601.



No. 6.



No. 5.



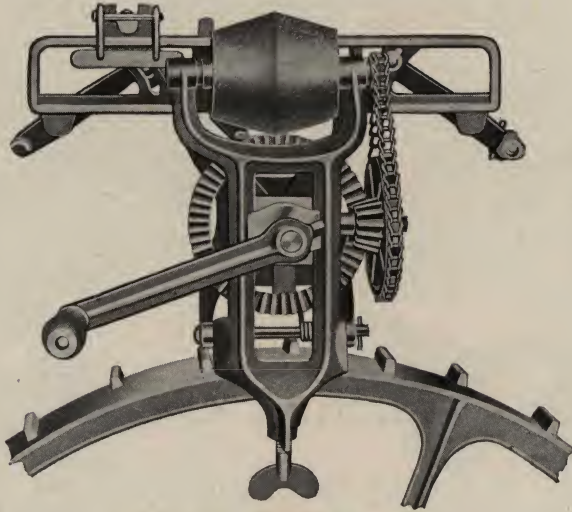
No. 7.

Machine Oilers

	Per Dozen
No. 1 Machine Oiler	\$2.50
No. 2 Machine Oiler	2.50
No. 3 Machine Oiler	2.50
No. 5 Machine Oiler	2.00
No. 6 Engineer's Oiler (1 pint)	5.00
No. 6 Engineer's Oiler (1 quart)	6.00
No. 7 Machine Oiler	2.50
Litho Mowing Machine Oiler	2.50
No. 600 Copperized Steel Mowing Machine Oiler	6.00
No. 601 Copperized Steel Mowing Machine Oiler	4.00

(Furnished with straight or bent spouts, as desired.)

The "Diamond" Bevel Wheel Knife Grinder



Grinds at Any Desired Bevel

The "Diamond" Grinder is the simplest machine for its purpose ever put upon the market, and the easiest to operate, especially by an inexperienced person. The construction is such that the grinding stone can be instantly set to grind knives at any desired bevel, a feature not contained in other machines, which grind only one bevel and therefore make it almost impossible to grind old scythes. With the "Diamond" nicks and gaps can be ground out easily, and in addition the knife can be ground in any possible way that may be desired. The fact that the grinding wheel runs at a high rate of speed by means of a steel chain belt, which does away with noisy and hard running gears, and the further fact that no clamping is required to hold the knife in a position to grind, allows the sections to be ground much more easily and faster than on any other machine. There are only two gears in the entire machine and the chain belt is of a large size and almost indestructible. All of the shafting is lathe cut from the very best cold rolled steel and the bearings are all nicely reamed to fit, prevent wear and to support the grinding wheel rigidly at the high rate of speed at which it runs. The castings are all neatly japanned and as thoroughly as on sewing machines or similar work. The emery wheel is the very best obtainable and will neither glaze nor draw the temper from knives. When desired, we furnish at an additional cost, a straight-faced stone which may be used in place of the regular bevel stone for tool grinding, etc. Each machine is securely packed in a neat wooden case which not only insures safety in shipping but keeps the stock in a clean and attractive condition. It is almost completely assembled and the work necessary to put the grinder in working condition can be done by anyone in less than one minute. It is very easily attached to a bench, mowing machine wheel or other suitable support.

Priceeach, \$6.00

Price List of Extra Parts for "Diamond" Knife Grinder



1898 and Previous

G—1 Swing Bracket for Scythe Holder (Long Frame) ..	\$0.60
G—2 Main Base Piece .....	.70
G—3 Clamp Plate .....	.20
G—4 Clamp Bracket (R't Hand) ..	.20
G—5 Clamp Bracket (L't Hand) ..	.20
G—6 Main Gearing Support .....	.50
G—7 Wheel Support .....	.50
G—8 Crank .....	.50
G—9 Button for G—10 .....	.20
G—10 Scythe Rest (Left Hand) ..	.20

G—11 Scythe Rest (Right Hand) ..	\$0.20
G—12 Hooked Scythe Rest .....	.20
G—13 Scythe Guide .....	.20
G—14 Scythe Holder Frame (Long)	1.00
G—15 Thumb Screw .....	.20
G—16 Cam Wrench .....	.20
G—17 Large Sprocket .....	.60
G—18 Bevel Gear and Axle Complete .....	.60
G—19 Emery Wheel Flange .....	.60
G—20 Flat Emery Wheel Flange ..	.30
G—21 Swing Support for Scythe Holder (Short Frame) ..	.60
G—22 Shaft for Emery Wheel .....	.30
G—23 Scythe Guide (Short Frame) .....	.20
G—24 Scythe Holder Frame (Short Frame) .....	.80
G—25 Small Sprocket .....	.30
G—26 Scythe Guide Spring .....	.20
G—27 Swing Bracket Spring .....	.30
G—28 Scythe Guide Rivet .....	.04
G—29 Swing Bracket Rivet .....	.06
G—30 Handle Rivet .....	.04
G—31 Wood Handle .....	.10
G—32 Clamping Bolt .....	.06
G—33 Clamp Bracket Bolt .....	.06
G—34 Bolt for G—10, G—11 or G—12 .....	.06
G—35 Bolt for G—9 .....	.06
G—36 Washer for G—6 .....	.01
G—37 Spring Cotter .....	.01
G—38 Chain Belt .....	.10
G—39 Emery Wheel	1.00
C—40 Emery Wheel (Mounted) ..	1.50
G—41 Screws for Flanges .....	.06
G—42 Set Screw for G—19 .....	.06
G—43 Set Screw for G—6 .....	.06
G—44 Set Screw for Crank .....	.06
G—45 Pivot Screw for G—1 .....	.06
G—46 Headless Screw for Small Sprocket .....	.04

Extra Parts for "Diamond" Knife Grinder—(Continued)

1899

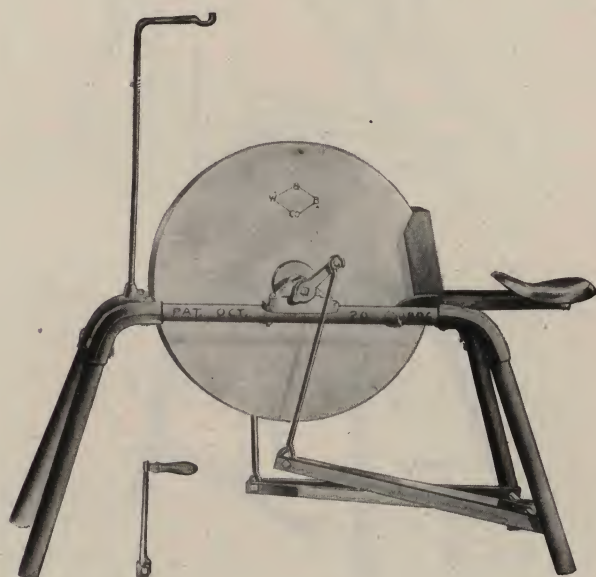
G—7 Wheel Support.....	\$0.50
G—8 Crank .....	.50
G—9 Button for G—10.....	.20
G—10 Scythe Rest (Left Hand)..	.20
G—11 Scythe Rest (Right Hand)	.20
G—15 Thumb Screw .....	.20
G—17 Large Sprocket .....	.60
G—18 Bevel Gear and Axle Com- plete .....	.60
G—19 Emery Wheel Flange.....	.60
G—20 Flat Emery Wheel Flange.	.30
G—21 Swing Support for Scythe Holder (Short Frame).	.60
G—22 Shaft for Emery Wheel....	.30
G—23 Scythe Guide (Short Frame) .....	.20
G—25 Small Sprocket.....	.30
G—26 Scythe Guide Spring.....	.20
G—27 Swing Bracket Spring....	.30
G—28 Scythe Guide Rivet.....	.04
G—29 Swing Bracket Rivet.....	.06
G—30 Handle Rivet.....	.04
G—31 Wood Handle.....	.10
G—34 Bolt for G—10 or G—11..	.06
G—35 Bolt for G—9.....	.06
G—36 Washer for G—50.....	.01
G—37 Spring Cotter.....	.01
G—39 Emery Wheel	1.00
G—40 Emery Wheel (Mounted)..	1.50
G—41 Screws for Flanges.....	.06
G—42 Set Screw for G—19.....	.06
G—43 Set Screw for G—50.....	.06
G—44 Set Screw for Crank.....	.06
G—46 Headless Screw for Small Sprocket .....	.04
G—47 Scythe Holder Frame....	.30
G—48 Main Base Piece.....	.70
G—49 Hooked Scythe Rest.....	.20
G—50 Main Gearing Support....	.50
G—51 Elbow Casting for G—7...	.30
G—52 Chain .....	.10
G—53 Bolt for G—51.....	.06

G—54 Stop Bolt for G—48.....	\$0.06
G—55 Curved Head Bolt for G—7	.06
G—56 Bolt for G—49.....	.06
G—57 Handle Rivet.....	.04
G—58 Wood Handle .....	.10
G—59 Washer .....	.01
G—60 Washer .....	.01

1901

B G 1—Swing Bracket.....	\$0.60
B G 2—Main Frame.....	.75
B G 3—Bevel Gear and Axle Complete .....	.60
B G 4—Large Sprocket Gear....	.60
B G 5—Clamp Plate.....	.10
B G 6—Gearing Support.....	.50
B G 7—Screw for B G 5.....	.06
B G 8—Crank .....	.50
G 9—Button for G 10.....	.20
G 10—Scythe Rest (Right Hand) .....	.20
G 11—Scythe Rest (Left Hand)	.20
G 12—Hooked Scythe Rest...	.20
G 15—Thumb Screw.....	.20
G 23—Scythe Guide.....	.20
G 24—Scythe Holder.....	.80
B G 25—Small Sprocket and Shaft Complete.....	.50
G 26—Scythe Guide Spring....	.20
B G 27—Swing Bracket Spring...	.30
G 28—Scythe Guide Rivet....	.04
G 29—Rivet for Swing Bracket	.06
G 30—Handle Rivet.....	.04
G 31—Wood Handle.....	.10
G 34—Bolt for G 10, G 11 or G 12.....	.06
G 35—Bolt for G 9.....	.06
G 36—Washer for B G 6.....	.01
G 37—Spring Cotter.....	.01
B G 40—Emery Wheel Mounted..	1.00
G 42—Set Screw for Emery Wheel Bushing.....	.06
B G 52—Chain for Bevel Grinder	.10

The "W. & B." Bi-Pedal Tubular Frame Grindstone



The Frame of this Grindstone is built of $1\frac{1}{4}$ inch steel tubing and best grade of malleable connections.

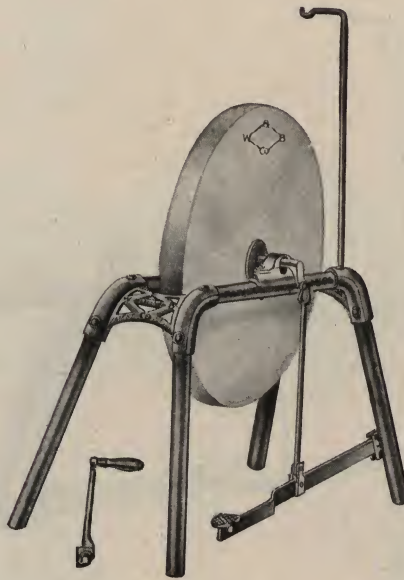
It is built especially for hard service, and is unequalled for strength and durability.

The Stone runs in our "W. & B." Anti-Friction Bearings, and is of selected grit. Nicely finished throughout and knocked down for shipment.

Made in three sizes—

- No. 10. Fitted with Stone weighing 100 lbs. to 115 lbs.
- No. 20. Fitted with Stone weighing 70 lbs. to 80 lbs.
- No. 30. Fitted with Stone weighing 45 lbs. to 55 lbs.

The "W. & B." Tubular Frame Grindstone



The Frame of this Grindstone is of the same general construction and finish as the Frame of the "W. & B." Bi-Pedal Tubular Frame, but is not fitted with seat or Bi-Pedal Attachments.

The Stone is carefully selected and our "W. & B." Anti-Friction Bearings are used.

Built in three sizes—

- No. 1. Fitted with Stone weighing 100 lbs. to 115 lbs.
- No. 2. Fitted with Stone weighing 70 lbs. to 80 lbs.
- No. 3. Fitted with Stone weighing 45 lbs. to 55 lbs.

Knocked down for shipment.



The "W. & B." Ball Bearing Grindstone

The frame of this Grindstone is of heavy Tubular Steel, strongly braced, is very rigid and cannot tip sideways or backward when in operation.

All fittings and fixtures used are of steel, the cranks are drop forged, and the only piece of casting used is the Malleable Bushing in the stone.

For these reasons the frame of the "W & B" Ball Bearing Grindstone is the strongest built and is practically indestructible.

The Shaft or Axle is of cold rolled steel and turns in our Special Ball Bearing Device, making it the easiest running on the market.

A comfortable seat, water can and rod and clothes protector are furnished with each Frame.

In shipping, the frame is folded up and strongly and compactly crated with the Stone, as shown in the cut below. Less labor and time are required to set it up than any other, as it is not necessary to manipulate even a bolt, pin or cotter.

It is very neat in appearance, and is attractively finished in blue and black.



The "Norka" Grindstone



The Frame is built of 1 inch heavy Tubular Steel, strongly braced, and cannot tip backwards or sideways.

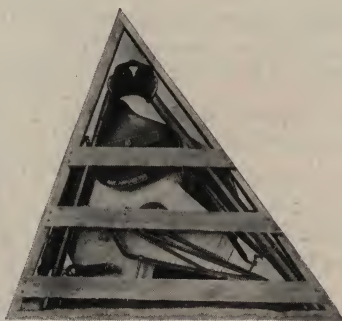
Fitted with Stone of selected grit and "W. & B." Anti-Friction Bearings. •

Furnished with Water Can, Rod and Water Shield.

Nicely finished in blue and black.

In shipping, the Frame is knocked down and packed in a strong crate, as shown in small cut, securing the lowest freight rate and reducing breakage to a minimum.

The lightest running Grindstone built.



The "Norka" Grindstone, crated for shipment

The "Diamond" Bi-Pedal Wood Frame Grindstone



The Frame is made of hard, maple thoroughly seasoned. The legs are gained to fit in the sides and fastened at each end of the frame by a bolt and separator. The sides of the frame are extended to form the seat support.

The frame stands absolutely solid when in service.

The bi-pedal construction is simple, and produces great power with slight foot movement. This, with our anti-friction bearing, with which this frame is fitted, makes the "Diamond" Bi-Pedal Grindstone the lightest running Wood Frame Stone on the market.

All parts of the frame are well painted and nicely finished.

Furnished with Water Can Rod and Water Shield.

Made in three sizes—

No. 100. Fitted with Stone weighing 100 to 115 lbs.

No. 200. Fitted with Stone weighing 70 to 80 lbs.

No. 300. Fitted with Stone weighing 45 to 55 lbs.

Knocked down and neatly packed for shipment.

The "Diamond" Plain Wood Frame Grindstone



In construction the Frame of this Stone is similar to our "Diamond" Bi-Pedal Wood Frame, except the sides are not extended for a seat.

The foot pedal bar is securely fastened to the frame.

The Stone runs in our Anti-Friction Bearings, and is of very light draft.

Furnished with Crank, Water Can Rod and Water Shield.

All parts well painted and neatly finished.

Knocked down and well packed for shipment.

Built in three sizes—

No. 1. Fitted with Stone weighing 100 lbs. to 115 lbs.

No. 2. Fitted with Stone weighing 70 lbs. to 80 lbs.

No. 3. Fitted with Stone weighing 45 lbs. to 60 lbs.

Price List of Repairs for the "W. & B." Bi-Pedal Tubular Frame Grindstone, Nos. 10, 20 and 30

No. of Part	Price Each
1	Foot of Can Rod.....\$0.10
3	End Connection, Bottom......45
4-1	End Connection, Top..... 1.15
4-2	End Connection, Top..... 1.15
4-3	End Connection, Top..... 1.15
5	Base of Roller Box..... .20
6	Cap ..... .20
7	Roller ..... .10
9	Axle Nut ..... .10
10	Crank, complete with handle......50
14	Axle ..... .65
15	Crank, Complete ..... .25
	Tubular Legs ..... .30
	Tubular Sides ..... .40
	Can Rod with No. 1 Foot attached......40
	Treadle Bar ..... .40
	Treadle Bar Rod......15
	Pitman Rod ..... .10
	Seat ..... .50
	Seat Clamp ..... .10
	Seat Support ..... .75
	Shield ..... .25
	Bushings, Complete 1.00

Price List of Repairs for the "W. & B." Tubular Frame Grindstone, Nos. 1, 2 and 3

No. of Part	Price Each
1	Foot of Can Rod.....\$0.10
2	Treadle Connection to Leg with Plate and Bolt......30
3	End Connection, Bottom......45
4-1	End Connection, Top..... 1.15
4-2	End Connection, Top..... 1.15
4-3	End Connection, Top..... 1.15
5	Base of Roller Box......20
6	Cap of Roller Box......20
7	Roller ..... .10
8	Axle ..... .65
9	Axle Nut ..... .10
10	Crank, Complete with Handle......50
11	Treadle Step ..... .25
12	Treadle Clip ..... .65
13	Treadle Connection ..... .65
	Tubular Legs ..... .30
	Tubular Sides ..... .40
	Can Rod with No. 1 Foot attached......40
	Treadle Bar with No. 11 Step attached......85
	Plate Washer ..... .05
	Bushings, Complete 1.00

Price List of Repairs for the "Norka" Grindstone

August 1st, 1907

No. of Part		Price Each
7	Roller Box Rollers.....	\$0.10
9	Axle Nut .....	.10
16 or No. 21	Roller Box Cap.....	.20
17	Roller Box Base, R. H.....	.20
18	Roller Box Base, L. H.....	.20
	Roller Box Complete.....	.60
19	Crank .....	.10
20	Axle only .....	.50
	Axle complete with No. 9 Nut and No. 19 Crank.....	.70
26	Treadle Bar—bent .....	.15
27	Treadle Bar—straight .....	.15
28	Brace for Seat Support.....	.10
29	Cross Braces—Rear—in pairs.....	per pair, .20
30	Cross Braces—Front—in pairs.....	per pair, .20
31	Pitman Rod .....	.10
32	Treadle Cross Rod or Tie Bar.....	.10
33	Seat Clamp .....	.10
34	Seat Support .....	.40
35	Can Holder .....	.10
36	Pipe Frame only—R.....	1.25
36	Pipe Frame only—L.....	1.25
37	Seat .....	.50
38	Water Can .....	.20
39	Shield or Splasher.....	.25
	Bushings complete	1.00

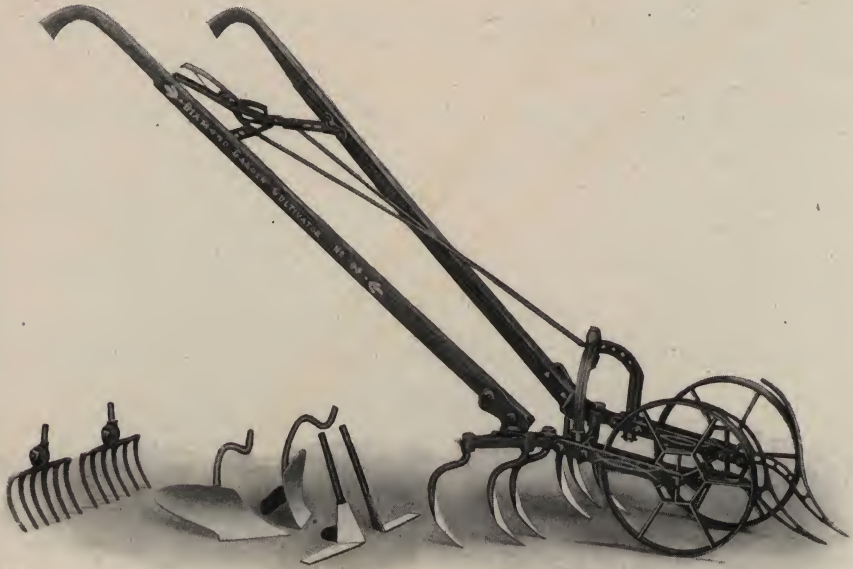
Price List of Repairs for the "Diamond" Wood Frame Grindstone, Nos. 1, 2 and 3

No. of Part	Price Each
7	Roller Box Rollers.....\$0.10
G 6	Roller Box Base......20
G 7	Roller Box Cap......20
	Roller Box Complete......60
20	Axle for Nos. 2 and 3 only......50
G13	Axle for No. 1 only......50
9	Axle Nut .....10
20	Axle Complete with Nut for Nos. 2 and 3 only......60
G13	Axle Complete with Nut for No. 1 only......60
G15	Crank .....15
	Crank Handle .....10
	Crank Complete .....25
	Frame Sides for No. 1......45
	Frame Sides for Nos. 2 and 3......40
	Legs .....25
	Pedal .....10
	Spacing Spool .....10
	Pitman .....10
	Water Can Rod......15
	Wire Staple .....05
	Spring Cotter .....05
	Bolts, all sizes......05
	Bushings Complete .....1.00

Price List of Repairs for the "Diamond" Wood Frame Bi-Pedal Grindstone, Nos. 100, 200 and 300

No. of Part	Price Each
7	Roller .....\$0.10
G 6	Roller Box Base......20
G 7	Roller Box Cap......20
	Roller Box Complete......60
20	Axle, Nos. 200 and 300 only......50
G13	Axle, No. 100 only......50
9	Axle Nut .....10
20	Axle Complete with Nut......60
G13	Axle Complete with Nut......60
19	Crank, Nos. 200 and 300 only......10
G14	Crank, No. 100 only......15
	Frame Sides for No. 100......50
	Frame Sides for Nos. 200 and 300......45
	Legs .....25
	Pedal .....10
	Seat only .....25
	Seat Clamp only......10
	Seat, Complete with Clamps......40
	Spacing Spool .....10
	Pitman .....10
	Can Rod .....15
	Splasher or Shield......25
	Wire Staple .....05
	Spring Cotter .....05
	Bolts, all sizes......05
	Bushings, complete .....1.00

“Diamond” Double Wheel Garden Cultivator



Cut Represents No. 96

The “Diamond” Double Wheel Garden Cultivator is built throughout of first-class material, and is one of the strongest and most durable on the market.

It has a special device for expanding and closing, which permits the operator to set the Cultivator instantly to any desired width.

It is furnished with attachments for harrowing, furrowing and covering. Attractively finished and knocked down for shipment.

- No. 95. Diamond Double Wheel Garden Cultivator with six reversible points, Weed Cutters, right and left hand Plows and Leaf Guards. .each, \$6.00
- No. 96. Diamond Double Wheel Garden Cultivator with six reversible points, Weed Cutters, right and left hand Plows, Leaf Guards and Rakes each, 6.50

“Diamond” Single Wheel Garden Cultivator



Cut Represents No. 91

The “Diamond” Single Wheel Garden Cultivator is well built throughout, and has an arrangement of frame which is strong, neat and compact.

With the aid of the different attachments, this Cultivator can be used for hilling, furrowing and covering.

The hilling attachments or weed cutters can be arranged to hold in or out, and to or from the plants, and can be set at any desired angle.

The wheels and handles are adjustable.

Neatly finished and knocked down for shipment.

No. 90. Diamond Single Wheel Garden Cultivator with five reversible points,
Weed Cutters, right and left hand Plows.....each, \$5.00

No. 91. Diamond Single Wheel Garden Cultivator with five reversible points,
Weed Cutters, right and left hand Plows and Rakes.....each, 5.50

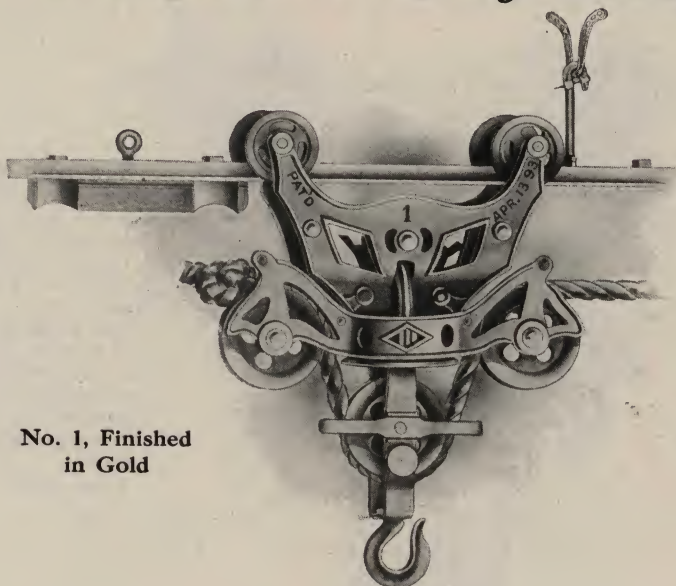
Price List of Repairs for "Diamond" Double Wheel Garden Cultivator

No.		Price Each
355	Front Gang	\$0.20
356	Rear and Center Gang.....	.20
	Front Gang with Steel Riveted.....	.35
	Rear Gang with Steel Riveted.....	.35
357 & 765R	Plow Right, Gang and Blade Riveted.....	.65
357 & 765L	Plow Left, Gang and Blade Riveted.....	.65
358R	Weeder, Right .....	.65
358L	Weeder, Left .....	.65
359	Wheel Jack, Right.....	.20
360	Wheel Jack, Left.....	.20
361	Expander Rods .....	.70
764	Steel Point for Gangs.....	.10
X 32	Wrench .....	.10
X103	Frame, R. and L.....	.90
X103	Frame Fitted with Set Screws.....	1.20
X104	Arch, Left .....	.40
X105	Arch, Right .....	.40
X104 & X105	Arch, R. and L., Bolted Together.....	.95
X106	Expander Lever .....	.30
X107	Expander Rack .....	.25
X108	Expander Latch .....	.10
X109	Hinge Clamp .....	.20
X110	Vine Lifter .....	.20
X111	Handle Bracket, Right.....	.25
X112	Handle Bracket, Left.....	.25
X113	Wheel .....	.90
X122	Rake .....	.40
X123	Rake Shanks .....	.10
X122 & X123	Rake, Complete .....	.60
	Handles, Complete, Pair.....	1.75
	Handles, Right or Left.....	.90
	Spring for Handle Spreader.....	.15
	Bushing for Wheels.....	.15
	Set Screws for Gang.....	.10

Price List of Repairs for "Diamond" Single Wheel Garden Cultivator

No.		Price Each
350	Front Gang	\$0.20
351	Rear and Center Gang.....	.20
350	Front Gang with Steel Riveted.....	.35
351	Rear and Center Gang with Steel Riveted.....	.35
353R	Weeder, Right .....	.65
353L	Weeder, Left .....	.65
354	Wheel Jack .....	.20
764	Steel Point for Cultivator.....	.10
	Plow, R. or L. (Gang and Blade Riveted).....	.65
X 32	Wrench .....	.10
X114	Frame	1.35
X114	Frame Fitted with Set Screws.....	1.85
X115	Handle Brackets, R. and L.....	.25
X116	Wheel	1.50
X120	Rakes, Left .....	.55
X121	Rakes, Right .....	.55
X123	Rake Shanks .....	.10
X120 & X123	Rake, Complete, Left.....	.75
X121 & X123	Rake, Complete, Right.....	.75
	Handles, Complete, Pair.....	2.15
	Handles, Right or Left.....	.95
	Rounds for Handles.....	.25
	Set Screws to Hold Gangs in Frame.....	.10

"Diamond" Haying Tools



No. 1, Finished
in Gold

Our Improved No. 1 "Diamond" Swivel and Reversible Steel Track Carrier is one of the most popular on the market. It is made very strong and of the best malleable iron.

The track wheels revolve on turned steel axles. The rope wheels have chilled hubs and turn on bushings which are recessed into the side of the Carrier frame, not only increasing the life of the Carrier but also making it very compact.

The locking device is simple and does not require the close adjustment that most Carriers do, having nearly an inch allowance, while other Carriers have but about one-eighth of an inch. This is a very valuable feature and should not be overlooked in the purchase of a hay carrier.

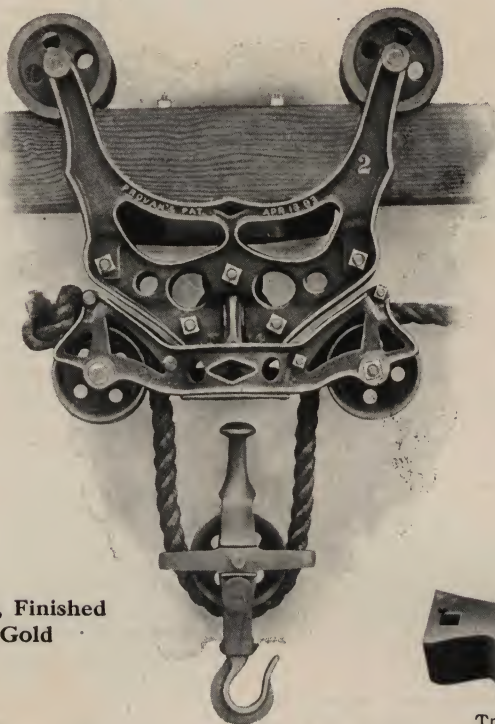
Another important feature is that the Carrier can pass the stop or any number of stops if required without releasing the fork or load and without any hindrance to its moving along.

Price.....\$7.00 Weight, complete, 25 lbs.



End view of No. 1 "Diamond"
Steel Track Carrier.

“Diamond” Haying Tools



No. 2, Finished
in Gold

Our No. 2 “Diamond” Swivel and Reversible Carrier is of the same construction as our No. 1, except that it is built to run on 4"x4" wood track.

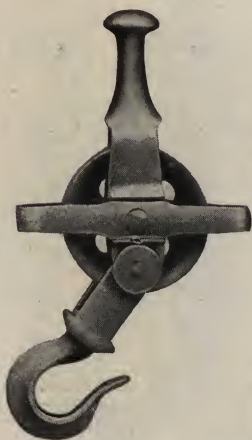
The frame of this carrier is made very heavy and it positively will not spread under a heavy load.

Weight, complete, 30 pounds.

Price, \$7.00.



Trip or Stop for No. 2 Carrier
Price each, \$0.50



Fork Pulley for Nos. 1
and 2 Carriers
Price each, \$1.00



Trip or Stop for No. 1 Carrier
Price each, \$0.50

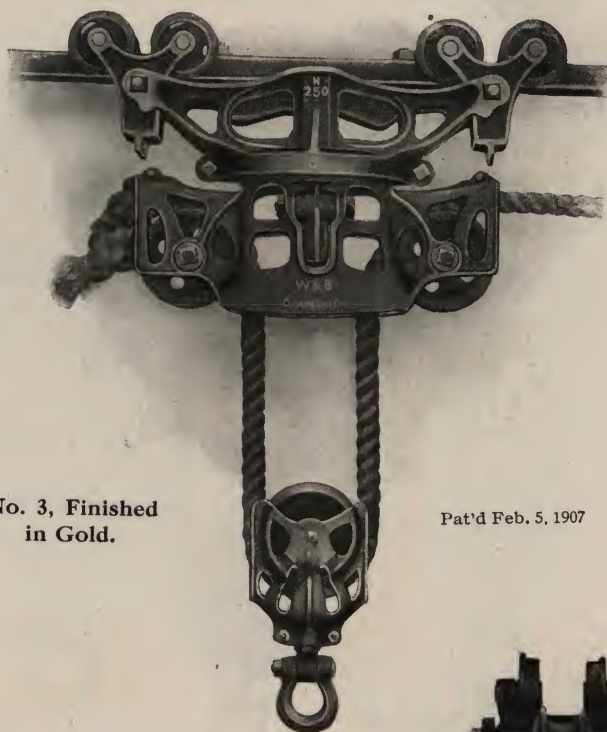


Diamond in Trip or
Stop.
Price each, \$0.20



Top View of Trip or Stop.
Price each, \$0.30

"Diamond" Haying Tools



No. 3, Finished
in Gold.

Pat'd Feb. 5, 1907

This illustration represents our latest improved No. 3 "Diamond" Wide Mouth Engine Truck, Swivel and Reversible Steel Track Carrier.

This carrier is especially designed for heavy work and having a spread of 21 inches, distributes the load more evenly on the track than a Carrier with shorter spread. The eight wheels and the independent trucks make it one of the easiest running Carriers on the market.

The wide mouth receives the fork pulley, which swings with the load when locked, as it approaches from either direction.

The lock is positive and is forced into action by the pulley block coming in contact with the gripping dogs, which will hold the pulley perfectly until again released by the stop.

The Carrier will work out of either side of the stop by simply swiveling the rope.

The track wheels are bored smooth and fitted with turned steel axles. The rope wheels have chilled hubs and run on bushings, fitted into the sides of the frame, thereby taking all wear and strain off the bolt, giving longer life than any other known construction.

All parts of the frame are made from the very best of malleable iron and are amply strong for any service required.

This Carrier is of very neat design and presents a handsome appearance.

Price.....\$8.00

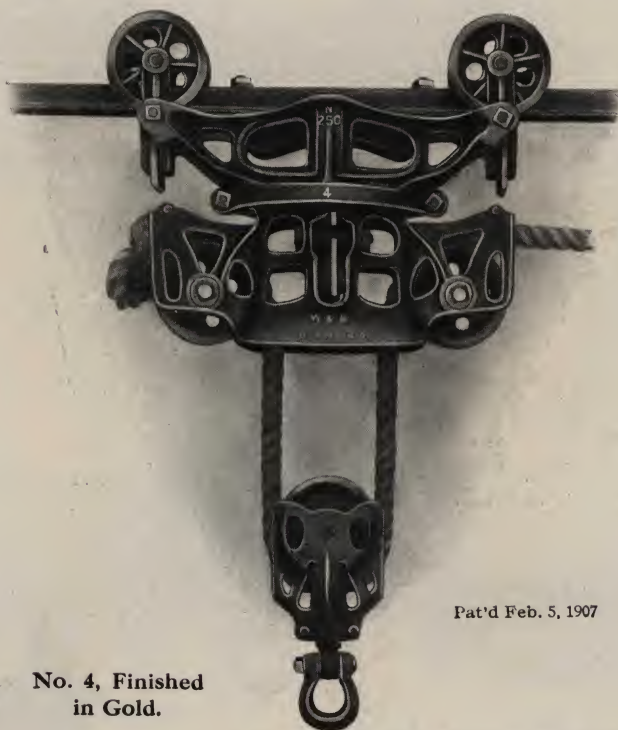
Weight complete, 32 pounds.



Pat'd Feb. 5, 1907

Bottom view of No. 3
Carrier

“Diamond” Haying Tools



Pat'd Feb. 5, 1907

**No. 4, Finished
in Gold.**

This Carrier is of the same general construction as our **No. 3 “Diamond” Wide Mouth Swivel and Reversible Carrier** except that it is made with independent single trucks.

The trucks are built from one solid piece of best malleable iron and cannot spread on the track with a heavy load. The track wheels run on turned steel axles and the rope wheels have chilled hubs and run on bushings that fit in recesses of the frame, thereby taking all wear and strain off the bolt.

This Carrier works with the same track and locking device as our No. 3 Carrier.

It is the strongest four wheel Carrier made.

Price.....\$7.00

Weight, complete, 29 pounds.

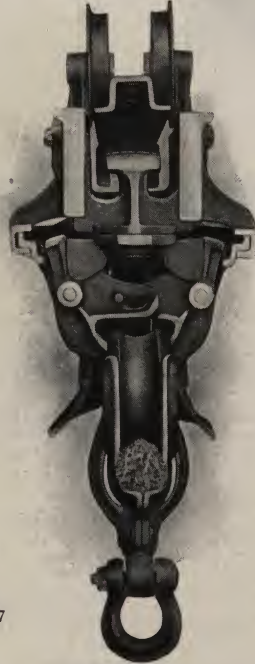


**Fork Pulley for Nos. 3,
4 and 5 Carriers.**

"Diamond" Haying Tools



Cut No. 1



Cut No. 2

Pat'd Feb. 5, 1907

THE "DIAMOND" LOCKING DEVICE.

The gripping or Locking mechanism in "Diamond" Hay Carriers Nos. 3, 4, 5 and 10 consists of only four working parts, the Plunger Head, Plunger and two Gripping Dogs. The Plunger Head and Plunger are made in separate parts to allow the Carrier to swivel.

When the Fork Pulley enters the mouth of the Carrier it strikes the Gripping Dogs, forcing them out of the Plunger at the top and into the Pulley Sheave, which is deeply concaved, at the bottom. The instant the Dogs are forced out of the Plunger, the Plunger drops between them and locks them securely into the Pulley Sheave, holding the load in a swinging position, as shown in cut No. 2 above, until the Carrier returns to the stop.

When the Carrier returns to the Stop, the Plunger Head is caught by the Stop and raised, withdrawing the Plunger from the Dogs and releasing the Fork Pulley, as shown in cut No. 1 above.

The Heads of the Gripping Dogs, on being thrown together, form a base upon which the head rests, giving it a bearing surface the entire width of the Stop. This is a very important feature, as the Head must stand all the strain of raising the load to the Carrier.

There are no springs in any of our Fork Carriers, the locks work by gravity and cannot get out of order.

“Diamond” Haying Tools



Track Bumper



“Diamond” Steel Track showing Bumpers, Coupling, Stop, Hanger Hooks and Rafter Brackets.



Track Coupling



“DIAMOND” STEEL TRACK

“Diamond” Steel Track is U-shaped and rolled in one piece from High Carbon Steel of heavy gauge, making it very strong and rigid. It is slotted at the top to receive Coupling Bolts and Hanger Hooks and when complete with Hanger Hooks, Rafter Brackets, Couplings, etc., contains fewer parts than any track on the market.

“Diamond” Steel Track is easier to hang than any other, as it is only necessary to insert the Hanger Hooks in the slots, turn them, hang them over the Rafter Brackets and bolt the lengths of track together at the Couplings.

The Couplings are drawn into the track on a taper, making it as strong at the joint as at any other part.

“Diamond” Hanger Hooks are tapered at the end, therefore they hold firmly and it is impossible to pull them through the track. The hook ends are cut off short and require little space to hook over the Rafter Brackets, therefore the brackets can be placed close up in the peak of the barn and have plenty of room on the rafter for nailing.

By slipping an 8d nail through the Hanger Hooks all possibility of unhooking is removed.

In bolting the Stop to “Diamond” Steel Track the bolt comes through at one end of the slot and the lug on the stop at the other, making slipping or loosening impossible. The Stop is made in one piece and the Carrier can enter it from either direction.

PRICES.

“Diamond” Steel Track with couplings and bolts.....	per foot,	\$0.20
Steel Track Hanger Hooks.....	per doz.,	1.40
Steel Track Rafter Brackets.....	per doz.,	.60
Track Bumpers	each,	.10
Track Couplings	each,	.10
Trip or Stop for Nos. 3, 4 and 5 Carriers.....	each,	.50



End View of Track, Hanger Hook and Rafter Bracket.



Trip or Stop for Nos. 3, 4 and 5 Carriers.



Bottom view of Trip or Stop for Nos. 3, 4 and 5 Carriers.



“Diamond” Steel Track Hanger Hook showing taper end.

“Diamond” Haying Tools



Pat'd Feb. 5, 1907

**No. 5, Finished
in Gold**

We show on this page our No. 5 “Diamond” Wide Mouth Swivel and Reversible Carrier built to be operated on 4"x4" wood track.

This Carrier has a large wide mouth that receives the Fork Pulley from any direction and in entering the Carrier this pulley operates the Dogs in such a manner that it is held firmly in swinging position until again released by returning to the stop. It will swing freely with the load without raising the Carrier from the track and the lock is positive and cannot fail to work under all conditions.

The trucks on the Carrier are built extra strong and cannot spread when carrying a heavy load; the track wheels are bored and run on bushings properly fitted to the independent trucks, and as they have extra wide faces without flanges will not cut or injure the track. The rope wheels have chilled hubs and run on bushings firmly recessed into the Carrier frame, taking all strain and wear from the bolt.

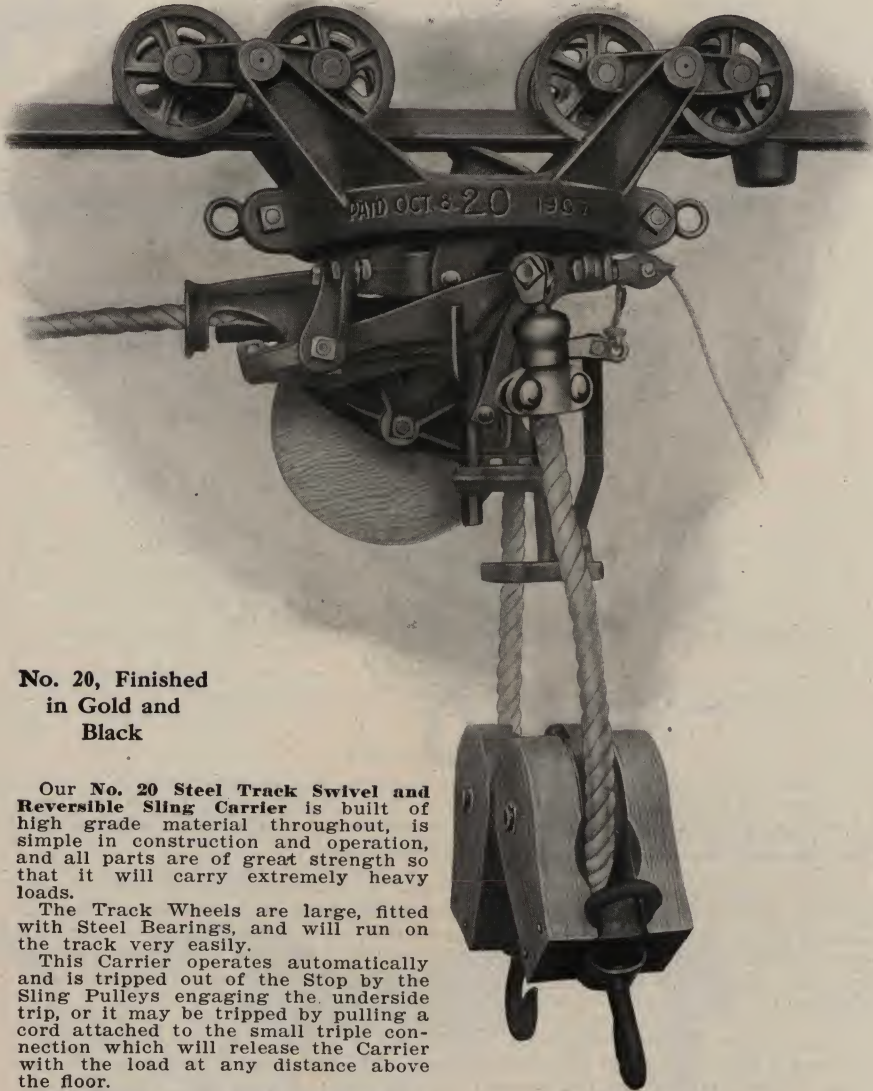
This Carrier is reversed by the swivel and will work equally well out of either side of the stop.

It is well built, is strongly braced and will give perfect satisfaction.

Price.....\$7.00

Weight, complete, 37 pounds.

“Diamond” Haying Tools



No. 20, Finished in Gold and Black

Our No. 20 Steel Track Swivel and Reversible Sling Carrier is built of high grade material throughout, is simple in construction and operation, and all parts are of great strength so that it will carry extremely heavy loads.

The Track Wheels are large, fitted with Steel Bearings, and will run on the track very easily.

This Carrier operates automatically and is tripped out of the Stop by the Sling Pulleys engaging the underside trip, or it may be tripped by pulling a cord attached to the small triple connection which will release the Carrier with the load at any distance above the floor.

It is built so the load is raised at a right angle to the track, but without the use of right angle pulleys, our regular Sure Grip Pulleys being used, and the load is deposited in the mow in the same position it is taken from the wagon.

The load is more easily elevated than with other Sling Carriers, as it is drawn over a 7½ inch Sheave in place of a set of two or three small Sheaves.

The Locking and Tripping Device contains few parts, is therefore very simple, works easily and is absolutely positive in action.

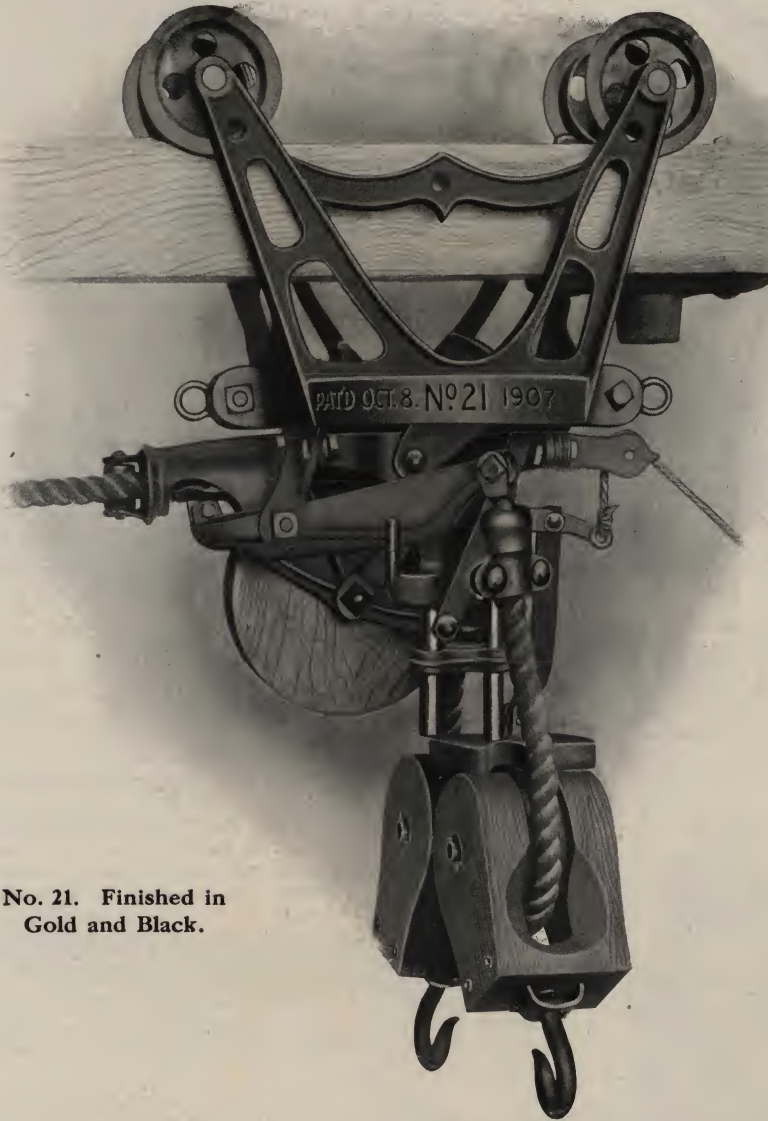
The Rope Grip is instantly thrown into action as the Carrier begins to leave the stop and the Rope Gripping Lever will hold the rope without any slipping.

The No. 20 Carrier is adapted for use with either Center Trip or End Brake Slings or with two Double Harpoon Forks, one attached to each Pulley.

Weight, 53 pounds.

Price.....\$13.00

"Diamond" Haying Tools



**No. 21. Finished in
Gold and Black.**

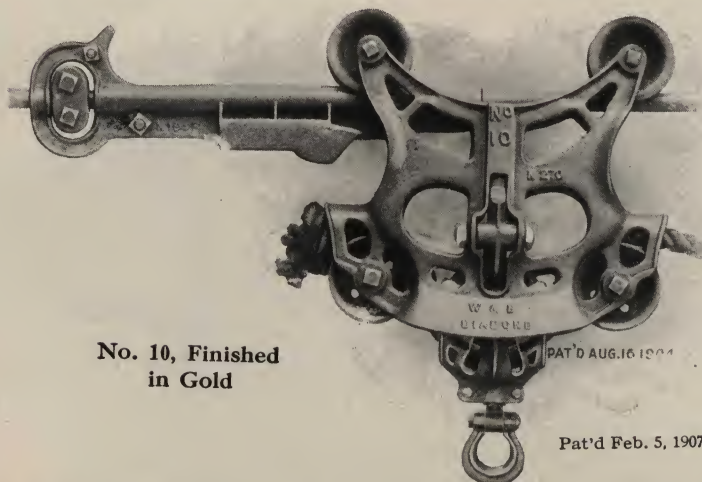
Our **No. 21 Wood Track Swivel and Reversible Sling Carrier** is similar in construction to our No. 20 Steel Track Sling Carrier, except it is built to operate on 4x4 inch Wood Track.

On both the No. 20 and No. 21 Carriers, when fitted for double hoist, the rope is held by a swivel grip, as shown in cut, which prevents the rope from twisting or kinking.

Weight, 56 lbs.

Price, \$12.00

"Diamond" Haying Tools



No. 10, Finished
in Gold

Pat'd Feb. 5, 1907

Our New No. 10 "Diamond" Wide Mouth Rod or Cable Carrier is used principally in the field for stacking or in barns where it is not practical to use any other Carrier.

It is built extra strong and will carry a very heavy load, yet is neat and compact.

The locking device consists of only three pieces, the locking head and two side grips and depends on neither springs nor gravity, but is positive in action.

As the stop swings on the rod or cable, the Carrier can enter it at any angle, and this stop is one of the features which makes our outfit far superior to any other on the market.

The Stop Block and Carrier can be placed after the rod or cable is in position.



End view of No. 10
Carrier

The clamps prevent the stop from working laterally or moving from the position placed on the rod or cable. The stop will swing freely around the rod or cable, which will allow a load to be taken up from the side of the stack as well as from the end without affecting the perfect working of the Carrier in the stop.

Having a wide, open mouth, the pulley head enters well up into the Carrier, allowing the stack to be built much closer to the track than any other Cable or Rod Carrier.

The track and rope wheels are strong and heavy, have chilled hubs, are neatly fitted and run on bushings, which are recessed into the frame, relieving all strain and wear on the bolts.

We guarantee this carrier to be first-class in every particular and to give perfect satisfaction.

Price....\$7.00

Weight, complete, 25 pounds.

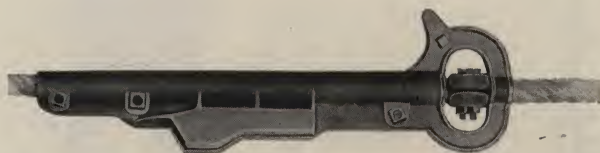
"Diamond" Haying Tools

FIELD STACKING OUTFIT

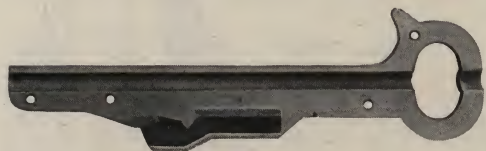


Material required for Cable Outfit for a 50-foot stack.

- | | |
|---|---|
| 1 No. 10 "Diamond" Carrier. | 2 $\frac{3}{8}$ x10-inch Carriage Bolts to hold poles together. |
| 1 Hay Fork. | 130 feet $\frac{3}{4}$ -inch Manila Rope. |
| 150 feet $\frac{1}{2}$ or $\frac{5}{8}$ -inch galvanized Cable. | 2 Pulleys. |
| 2 Single Cable Clamps. | 4 Poles 30 feet long. |
| 2 Double Cable Clamps. | |



Stop for No. 10 Cable Carrier in position, price, each.\$1.00



Sectional view of Stop and clamps for No. 10 Cable Carrier.

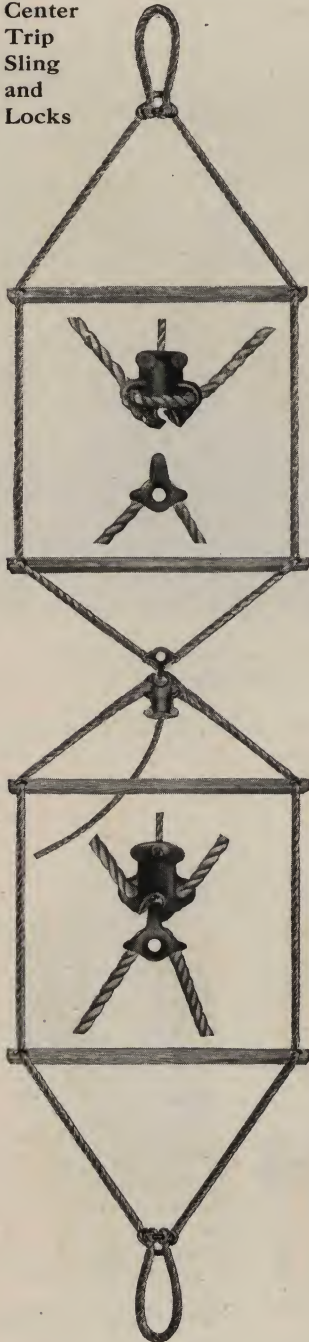


Single and Double Cable Clamps for securing cable used in Field Stacking Outfit.

Single Clamps,
per dozen.....\$3.00
Double Clamps,
per dozen..... 4.00

"Diamond" Haying Tools

Center
Trip
Sling
and
Locks



Our "W. & B." Center Trip Adjustable Sling is made with four, five or six-foot bars.

The Ropes are $\frac{1}{2}$ -inch, loose twist of best quality, will not kink and are fitted with a take-up eye at each end by which the length of sling can be adjusted from 17 to 20 feet as desired.

The lock is made of malleable iron, very simple and strong and trips easily. It is so constructed that it cannot be set wrong.

The Cross Bars are heavy and strong and the ropes are attached by a hook bolt which passes around the rope and through the bar, holding it in place by a nut and washer and the bar can be moved to any point required.

When tripped the sling separates into two parts, letting the hay drop out between, perfectly clear, and without tilting it on edge as side trip slings invariably do. The hay being rolled up, unrolls when discharged, and spreads out in the mow or on the stack as wide as the length of the sling and in exactly the same shape as it lay on the load. Hay or grain cannot be delivered in better shape for rehandling. Little or no space is required to clear the sling, and the ropes never get caught under the hay as they do with the side trip slings. Very little labor is required in building a stack, because the hay is dropped in a nice broad flake, which needs only a little smoothing to make the stack settle straight, and turn water perfectly.

Price, each, with 4-foot bars.....\$3.20

Price, each, with 5-foot bars..... 3.80

Price, each, with 6-foot bars..... 5.00

Our End Brake or All Rope Slings are made to work with an End Brake Sling Attachment which can be furnished with either our Parallel Sling Pulleys, as shown in cut, or with our Sure Grip Wood Frame Pulleys.

This Attachment, with our Parallel Sling Pulleys, makes a complete outfit for operating with End Brake Slings and with Carrier rigged double or triple hoist.

End Brake Slings,
per set of three,
price\$6.50

Parallel Sling Pulleys, with End Brake Sling Attachment, price, per pair\$2.50

Wood Frame Pulleys, with End Brake Sling Attachment, price, per pair.\$2.00



Parallel Sling Pulleys
with End Brake Sling
Attachment

"Diamond" Haying Tools

IDEAL SELF-LOCKING HAY SLING PULLEYS

To be used in connection with regular steel and wood track hay carriers.

These pulleys are spread apart, as in Fig. 77, to hook to the ends of the sling, and when the sling load is rolled up they lock together, as in Fig. 76, before registering in the carrier. The rope from the carrier is first passed through under the sheave on one side of the double pulley then around the sheave in single pulley, and then up under sheave on the other side of the double pulley, to the carrier.

The sling should be long enough so the hay will not come over the pulleys, and the end of the sling to which the single pulley is hooked should extend out the most, as the double pulley has a tendency to roll up its end first. One sling pulley and two stand-



Fig. 76.

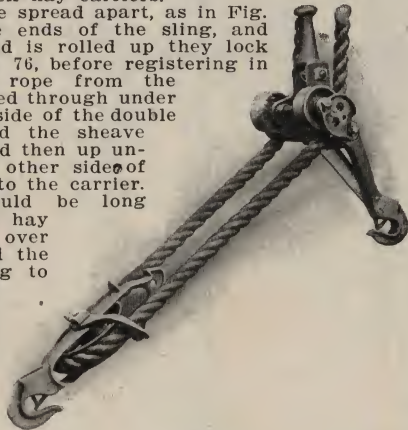


Fig. 77.

ard slings are usually ordered with each carrier.

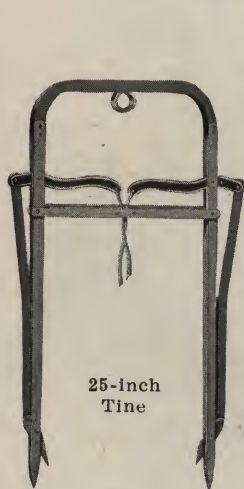
Price each, \$3.00

REGISTERING HEADS FOR SELF-LOCKING PULLEYS

The following are the cuts of the registering heads which are made for self-locking sling pulleys to fit the different carriers named.

Price each, 50c

RH 1
LoudenRH 2
HallRH 3
StarRH 4
LeaderRH 5
ChurchRH 6
PorterRH 7
Milwaukee ReversibleRH 8
Milwaukee
SwivelRH 9
Burbank's
EclipseRH 10
Ney and
SuperiorRH 11
ObornRH 12
JordanRH 13
O. B. & Q.RH 14
Myers' O.K.RH 15
AshlandRH 16
Myers'
Combina-
tionRH 17
Ideal & JumboRH 18
Janesville
DeadlockRH 19
Haymaker
or Im-
perialRH 20
Porter's
SwivelRH 21
BoydRH 22
DiamondRH 23
DiamondRH 25
Unloader

25-inch
Tine

No. 15



No. 12



No. 18



No. 14

31-inch
Tine

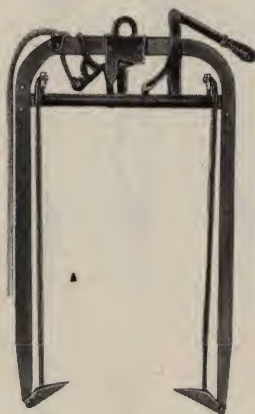
No. 16

No.	Price, ea.
12. Nellis Single Harpoon Fork..	\$3.00
14. Walker Single Harpoon Fork.	2.50
15. Double Harpoon Fork, 25-in. tine	1.60
16. Double Harpoon Fork, 31-in. tine	2.00
17. Double Harpoon Fork, 34-in. tine	2.50
19. Double Harpoon Fork, Alfalfa	3.70
18. Single Harpoon Fork.....	2.50
Diamond Lock Lever Fork...	4.00
5. Grapple Fork, 4-tine with spear, page 165.....	7.00

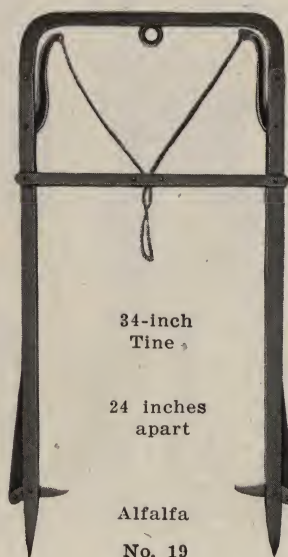
No.	Price, ea.
6. Grapple Fork, 6-tine, with spear, page 165.....	\$8.50
7. Grapple Fork, 4-tine, automatic, page 165.....	7.00
8. Grapple Fork, 6-tine, automatic, page 165.....	8.50
Jackson Forks, 3½-ft., 4-ft., 4½-ft., 4-tine, page 165.....	14.00
Jackson Forks, 5-ft., 6-tine, page 165	17.50
Jackson Forks, 6-ft., 6-tine, page 165	18.00
California Derrick Forks, 3½-ft., 4-ft., 4½-ft., 4-tine, page 165	14.00
5-ft., 6-tine, page 165.....	17.50
6-ft., 6-tine, page 165.....	18.00

34-inch
Tine

No. 17

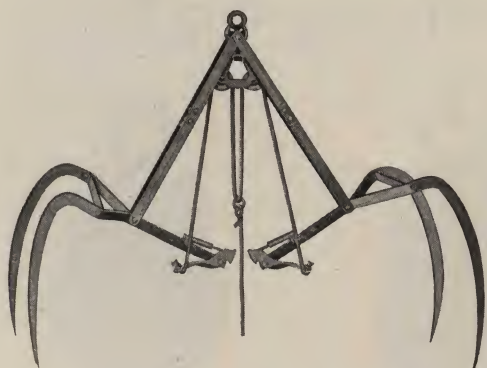


Diamond Lock Lever.

34-inch
Tine24 inches
apart

Alfalfa

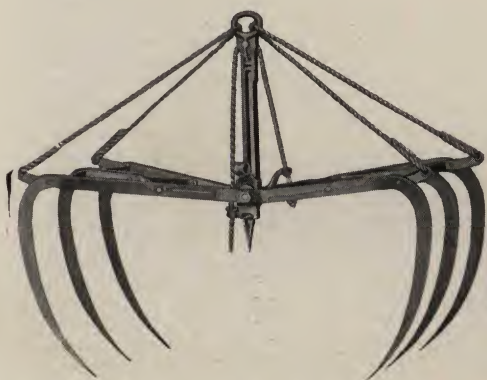
No. 19



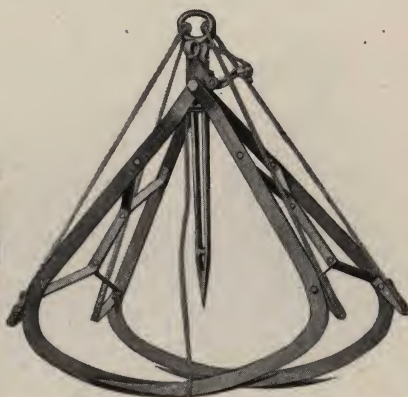
No. 7 Grapple Fork, 4 tine, Automatic, open.



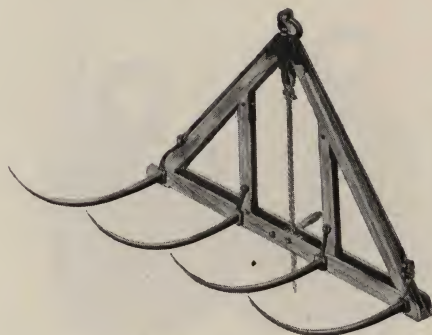
No. 8. Grapple Fork, 6 tine, Automatic, closed.



No. 6. Grapple Fork, 6 tine, with Spear, open.



No. 5. Grapple Fork, 4 tine, with Spear, closed.



Jackson Fork.



California Derrick Fork.

“Diamond” Haying Tools



No. 30



No. 31



No. 31 A

No. 30. Knot Passing Pulley having stamped steel frame, malleable swivel eye and 6-inch hard maple sheave dipped in hot oil and fitted with large bushing. Price, per dozen, \$4.00

No. 31. Pulley made with frame pressed from steel, malleable swivel eye and 5-inch hard maple sheave dipped in hot oil. Price, per dozen, \$3.20

No. 31A. This pulley has stamped steel frame, malleable swivel eye and 5 1/2-inch cast iron sheave turning on bushing. Frame is held by heavy bolt passing through bushing. Price, per dozen, \$3.50

No. 32. Plain Pulley, cast frame ribbed on edges and center, swivel eye, large loose pin and 6-inch hard maple sheave dipped in hot oil.

Price, per dozen, \$3.20

No. 32A. This Pulley has cast frame, reinforced with heavy ribs on edges and center, and swivel eye. Sheave is cast iron, 5 1/2 inches in diameter and fitted with solid axle. Price, per dozen, \$3.20

No. 32B. Same as No. 32 except it has 6-inch iron sheave fitted with large axle. Price, per dozen, \$3.50

No. 33. Knot Passing Pulley with frame of best malleable iron, large malleable swivel eye, loose pin and 6-inch hard maple sheave dipped in hot oil. A neat, strong and serviceable pulley. Price, per dozen, \$4.60

No. 34. Wood Frame Pulley with wrought iron yoke and malleable swivel eye. The frame is hard wood, riveted together at the top. The sheave, which is hard maple, turns on a large loose pin and is self-lubricating. Price, per dozen, \$4.00



No. 32



No. 32A



No. 32B



No. 33

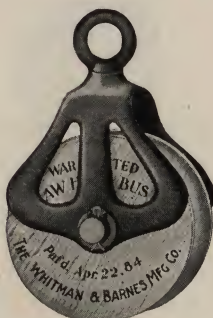


No. 34

"Diamond" Haying Tools



No. 34½



No. 39



No. 40

No. 34½. Same as No. 34, except this Pulley has malleable swivel hook in place of eye.

Price, per dozen, \$4.00

No. 36. Knot Passing Pulley with heavy ribbed cast frame, swivel eye and 6-inch hard maple sheave, which revolves on large, loose, hollow axle.

Price, per dozen, \$4.00

No. 39. "W. & B." Rawhide Bushed Pulley with frame of best grade malleable iron and swivel eye. The Sheave is 6-inch hard maple dipped in hot oil and runs on 9-16 inch polished steel axle. The bushing in this pulley is the best known and will outwear any other. It is even better than phosphor bronze, as it requires no oiling.

Price, per dozen, \$10.00

No. 40. This pulley is the same as our No. 39, except that it is knot passing and has a 5-inch hard maple sheave.

Price, per dozen, \$10.00

No. 43. Floor pulley with loose, hollow pin and strong cast frame protecting hard maple sheave. Fitted with swivel eye at top and solid eye at bottom by which it can be secured to post, thus preventing it from becoming unfastened from the hook or tangling with the rope.

Price, per dozen, \$4.50

No. 44. Steel Frame Pulley with seven inch hard maple sheave for 1¼-inch rope. The sheave turns on a large bushing and is self lubricating. Fitted with malleable clevis bolted to drop forged swivel shank. Made for hard service.

Price, per dozen, \$11.00

No. 45. Cable Pulley with heavy steel frame, 7 inches wide, steel hook and 7-inch iron sheave for ¾-inch or 1½-inch cable. A heavy brass bushing is fitted into the sheave which revolves on a polished hollow pin. The sheave is provided with a large oil chamber extending entirely around the brass bushing as shown in detail cut No. 45 A, and is self lubricating. A heavy machine bolt passes through the sheave and holds the frame.

Price, per dozen, \$14.10



No. 36



No. 45A



No. 45



No. 44



No. 43

"Diamond" Haying Tools



No. 46



No. 47



No. 48

No. 46. Sure Grip Pulley made with $1\frac{1}{2}$ -inch hard maple frame strongly riveted together and with very heavy steel yoke and hook.

Sheave is hard maple, dipped in oil. One of the strongest wood frame pulleys made and especially adapted for sling use.

Furnished with becket when so ordered.

Price, per dozen, \$8.00.

No. 47. Our new Parallel Sling Pulley is a pattern made to take the place of the old style parallel pulley of wood and swivel hook. The frame and hook is of best malleable iron and the sheave is hard maple, dipped in oil. The swinging hook allows the faces of pulleys to come up squarely together when compressing a load and lock in the hook prevents the unhooking of the sling eye in the mow.

Price, per dozen, \$9.00.

No. 48. This Pulley is made with a very strong frame in two parts, riveted together at the top. The frame is made with a flange which prevents the rope from cutting and is fitted with a malleable swivel eye. The sheave is 6 inches in diameter of hard maple and turns on a metal bushing.

Price, per dozen, \$4.80.

No. 49. This Pulley is the same as our No. 48, except that it is Knot Passing.

Price, per dozen, \$6.00.

No. 50. Buffer Derrick Pulley. In this Pulley the Frame and Buffer is made in one piece of heavy steel, fitted with 7-inch Iron Sheave for $\frac{3}{8}$ -inch or $\frac{1}{2}$ -inch cable.

The flange as shown in the cut is arranged so that it will prevent cutting of the rope.

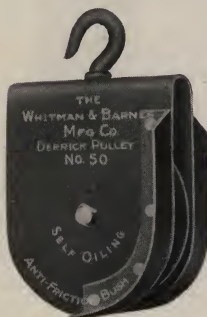
A heavy Brass Bushing is fitted into Sheave which turns on a polished hollow Pin. The Sheave is provided with a large Oil Chamber extending around the Brass Bushing.

A Machine Bolt passes through the Sheave and holds the Frame.

Price, per dozen, \$18.00.

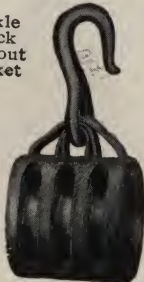
With our Provan's Patent Pulley Hoister the pulley can be instantly raised or lowered to or from any point in the barn.

Price, per dozen, \$3.00.



No. 50

Tackle Block without Becket



Tackle Block with Becket



Provan's Pulley Hoister



"Diamond" Haying Tools



No. 51. The frame of this Pulley is 10x13 inches in size and is fitted with a sheave 10 inches in diameter and $2\frac{1}{4}$ inches thick. The sheave turns on a bushing $1\frac{1}{8}$ inch in diameter, and this with the great diameter of the sheave makes it of very light draft.

Because of the large diameter of the sheave the bend of the rope is much longer than in the ordinary pulley and only about one-third as many revolutions are made for the same work.

The Pulley is Knot Passing and the frame and sheave are of selected stock, thoroughly seasoned.

Priceper dozen, \$16.50



No. 52. This is a Knot Passing Pulley intended for heavy work, and is built with a malleable frame in two parts, held together by bolts. A guard in the frame over the upper edge of the sheave prevents the rope from running out of the groove.

It is fitted with a 7 inch hard maple sheave, thoroughly seasoned, and malleable swivel eye.

This Pulley also has chain attachments to hold it in a horizontal or upright position and to keep it from tipping and wearing out the rope.

Priceper dozen, \$9.00



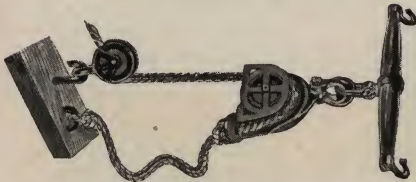
Pulley Sheaves

Made of thoroughly seasoned stock and bored.

PRICES—

4 inch, 5 inch and 6 inch.....	per dozen, \$2.00
7 inch	per dozen, 3.00
8 inch	per dozen, 4.00

"Diamond" Haying Tools



No. 42. Snatch Block Pulley complete with frame of malleable iron and cast iron sheave. Shortens the distance the horse must travel in elevating the load. Price, per dozen.....\$11.00



No. 41. Snatch Block Seat made of malleable iron and used with floor pulley. Price, doz...\$12.00

No. 23. Swivel Rope Hitch, saves tying hard knots and no wasting of rope by cutting knots. Hitch can be shortened to any length required by drawing end of rope, and the swivel takes out all twist. Price, per dozen.....\$3.20



Our hoisting Single tree does not drag against the horse's legs and the traces do not unhook nor get under the horses feet in backing and turning.

The eye to which the rope is fastened is swiveled, which keeps it from kinking. It is just the thing for all kinds of hoisting. Price, each....\$1.60

No. 26. Steel Grapple, made of best spring steel $1\frac{3}{4} \times \frac{1}{2}$. Opens 8 inches to attach to beam. Furnished with chain. Price, doz...\$10.00



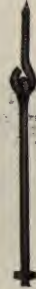
No. 27. Rod End, 8 inches long, $\frac{3}{4}$ -inch diameter with nut. Price, per dozen.....\$3.00



No. 21. Hanger Hook for wood track made of $\frac{1}{2}$ -inch iron of lengths given below. Measurement is taken after bending.

Price, doz., 10-in...\$1.00
Price, doz., 12-in... 1.10
Price, doz., 14-in... 1.20
Price, doz., 16-in... 1.30
Price, doz., 18-in... 1.30

No. 22. Hanger Hook, jointed, for wood track, has long lag screw thread. Length, 10 in. from eye to end of rod. Price, per dozen...\$2.00



Hanger Hook for "Diamond" Steel Track, made of malleable iron, is secured firmly to track without use of nut or clamps and held to the rafter bracket by placing a nail through hole in hook and shank. Price, per dozen...\$1.40

No. 25. Rafter Bracket, used to support hanger hook. It has four holes on each side and is se-

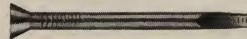
cured to rafter by $\frac{1}{4}$ -inch wrought iron hinge nails or drive screws. Saves expense of lumber and fitting to rafters.

Price, per dozen.....\$0.60



No. 20. Floor Hook, made of best grade of wrought iron and with coarse, heavy thread that will hold when screwed into the softest wood.

Price, doz., $\frac{5}{8}$ -in...\$1.20
Price, doz., $\frac{3}{4}$ -in... 1.40



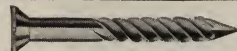
Hinge Nail, wrought iron, for Rafter Brackets.

Price, per pound...\$0.10

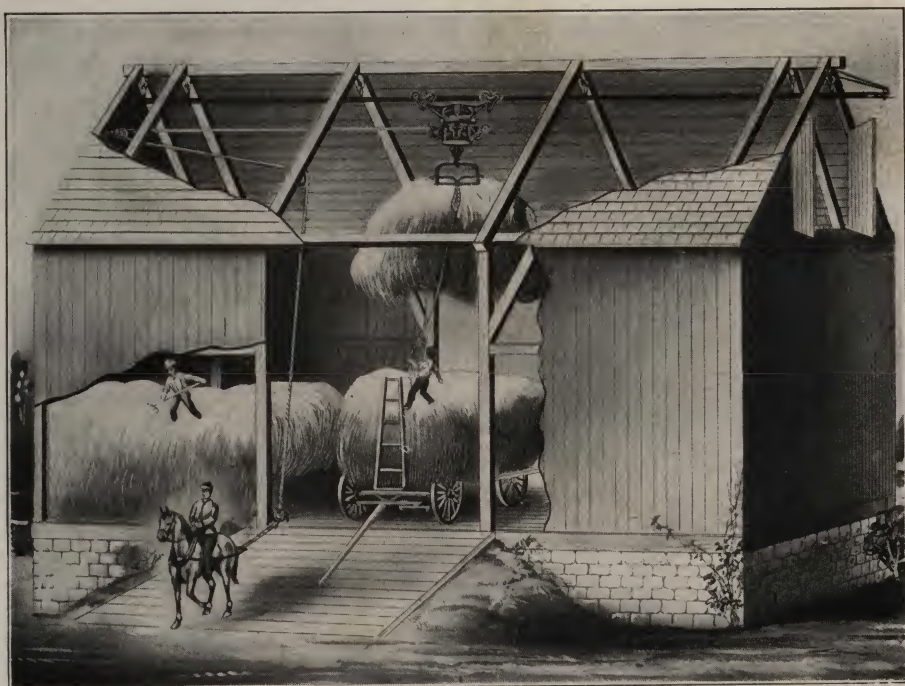


No. 24. Drive Screws for Rafter Brackets.

Price, per gross.....\$1.00



“Diamond” Haying Tools



DIRECTIONS FOR ERECTING “DIAMOND” STEEL TRACK.

Scaffold by placing a rope from rafter to rafter, say six feet from ridge pole or peak and about 10 feet apart. Then place an extension ladder across the ropes with a board to stand on. Now nail one rafter bracket at each end of the barn, draw a line from one end to the other and stretch tight.

Nail the Rafter Brackets even with this line, nailing all the Brackets on the side of the rafters toward the end of the barn from which the load is drawn. Where the load is drawn in from the barn floor the Brackets on either side of the center of the barn should be on the side of the rafters toward that end of the barn, thus taking out the end play of the track and making the pull directly against the rafters in place of away from it.

Next put up the track, which can be done in sections. Hoist near to rafter brackets by ropes.

Then place the Hanger Hooks in the slots of the track, turn them, hook them over the brackets and put 8d nails through the holes in the Hanger Hooks to prevent them from jumping off the brackets.

Then bolt the lengths of track together at couplings.

MATERIAL REQUIRED FOR A STEEL TRACK OUTFIT FOR DIFFERENT LENGTH BARN.

For a 40-foot Barn—One “Diamond” Reversible Carrier. 40 feet of steel track. 21 hanger hooks. 21 rafter brackets. 5 knot passing pulleys. 1 D. H. Fork. 6 floor hooks. 110 feet $\frac{3}{4}$ -inch manila rope. 40 feet $\frac{3}{8}$ -inch reverse rope.

For a 50-foot Barn—One “Diamond” Reversible Carrier. 48 feet of steel track. 25 hanger hooks. 25 rafter brackets. 5 knot passing pulleys. 1 D. H. Fork. 6 floor hooks. 130 feet $\frac{3}{4}$ -inch manila rope. 50 feet $\frac{3}{8}$ -inch reverse rope.

For a 60-foot Barn—One “Diamond” Reversible Carrier. 60 feet of steel track. 31 hanger hooks. 31 rafter brackets. 5 knot passing pulleys. 1 D. H. Fork. 6 floor hooks. 160 feet of $\frac{3}{4}$ -inch manila rope. 60 feet $\frac{3}{8}$ -inch reverse rope.

Different lengths of barns will use track, hanger hooks and rope in same ratio as above.

If required to take hay in at end of barn and have rope pass down at far end to horse, same amount of draft rope is needed. If draft rope be returned to same end of barn and then down, this requires about one-fourth more draft rope.

Price List of Repairs for No. 1 "Diamond" Swivel and Reversible Steel Track Carrier

No. of Part	Description.	Price each.	No. of Part	Description.	Price each.
N 1 1/2	Car Frame.	\$1 00	N 12	Fork Pulley Holder....	\$0 30
N 2 1/2	Swivel Yoke.	60	N 13	Fork Pulley Band.	20
N 4	Center Latch.	25	N 17	Track Wheel.	25
N 5 1/2	Side Latch.	20	N 18	Fork Pulley Sheave ...	25
N 6	Plain Sleeve.	10	N 18 1/2	Rope Sheave on Car. .	25
N 7 1/2	Sleeve with Lug.	10	N 32	Bumper.	10
N 8 1/2	Stop Block.	50	N 35	Bushing.	10
N 9 1/2	Diamond for Stop Block.	20		Track Wheel Axle Pin.	15
N 10	Fork Pulley Head.	45		Fork Pulley Pin.	05
N 11	Fork Pulley Hook.	30		All Bolts.	05

Price List of Repairs for No. 2 "Diamond" Swivel and Reversible Wood Track Carrier

No. of Part.	Description.	Price each.	No. of Part.	Description	Price each.
N 2 1/2	Swivel Yoke.	\$0 60	N 16 1/2	Diamond for Stop Block.	\$0 25
N 4	Center Latch.	25	N 18	Fork Pulley Sheave. .	25
N 5 1/2	Side Latch.	20	N 18 1/2	Rope Sheave on Car. .	25
N 6	Plain Sleeve.	10	N 19	Track Wheel.	25
N 7 1/2	Sleeve with Lug.	10	N 35	Bushing.	10
N 10	Fork Pulley Head.	45		Track Wheel Axle Pin.	15
N 11	Fork Pulley Hook.	30		Fork Pulley Pin.	05
N 12	Fork Pulley Holder.	20		All Bolts.	05
N 13	Fork Pulley Band.	20			
N 14	Car Frame.	1 25			
N 15 1/2	Stop Block.	50			

Price List of Repairs for No. 3 "Diamond" Engine Truck Wide Mouth Swivel and Reversible Steel Track Carrier

No. of Part.	Description.	Price each.	No. of Part.	Description.	Price each.
N 17	Track Wheel, N. S.	\$0 25	N 253	Stop Block Plunger Swivel.	\$0 25
N 18 1/2	Rope Sheave on Car. .	25	N 254	Stop Block.	50
N 32	Bumper.	10	N 255	Locking Grip, R. H. .	25
N 35	Bushing.	10	N 256	Locking Grip, L. H. .	25
N 125	Pulley Clevis.	25	N 257	Fork Pulley Frame. .	25
N 200	Track Frame.	50	N 258	Fork Pulley Hook. .	25
N 204	Track Wheel, O. S.	25	N 259	Fork Pulley Sheave. .	50
N 250	Car Frame.	1 00		Track Wheel Axle Pin..	15
N 251	Swivel Frame.	1 00		Fork Pulley Pin.	05
N 252	Stop Block Plunger.	50		All Bolts.	05

Price List of Repairs for No. 4 "Diamond" Independent Truck Wide Mouth Swivel and Reversible Steel Track Carrier

No. of Part.	Description.	Price each.	No. of Part.	Description.	Price each.
N 18½	Rope Sheave on Car. . .	\$0 25	N 253	Stop Block Plunger Swivel	\$0 25
N 32	Bumper.	10	N 254	Stop Block.	50
N 35	Bushing.	10	N 255	Locking Grip, R. H. . . .	25
N 301	Track Wheel N. S.	25	N 256	Locking Grip, L. H. . . .	25
N 204	Track Wheel O. S.	25	N 257	Fork Pulley Frame.	25
N 125	Pulley Clevis	25	N 258	Fork Pulley Hook.	25
N 222	Truck Frame.	40	N 259	Fork Pulley Sheave	50
N 250	Car Frame.	1 00		Track Wheel Axle Pin. . .	15
N 251	Swivel Frame.	1 00		Fork Pulley Pin.	05
N 252	Stop Block Plunger. . . .	50		All Bolts.	05

Price List of Repairs for No. 5 "Diamond" Independent Truck Wide Mouth Swivel and Reversible Wood Track Carrier

No. of Part.	Description.	Price each.	No. of Part.	Description.	Price each.
N 18½	Rope Sheave on Car. . .	\$0 25	N 256	Locking Grip, L. H. . . .	\$0 25
N 35	Bushing.	10	N 257	Fork Pulley Frame.	25
N 125	Pulley Clevis.	25	N 258	Fork Pulley Hook.	25
N 221	Truck Frame.	1 00	N 259	Fork Pulley Sheave.	50
N 223	Track Wheel	25	N 274	Stop Block.	50
N 250	Car Frame.	1 00	N 276	Bushing for Track Wheel	10
N 251	Swivel Frame.	1 00		Track Wheel Axle Pin. . .	15
N 252	Stop Block Plunger. . . .	50		Fork Pulley Pin.	05
N 253	Stop Block Plunger Swivel.	25		All Bolts.	05
N 255	Locking Grip, R. H. . . .	25			

Price List of Repairs for No. 10 "Diamond" Rod or Cable Carrier

No. of Part.	Description.	Price each.	No. of Part.	Description.	Price each.
N 35	Bushing	\$0 10	N 257	Fork Pulley Frame.	\$0 25
N 94	Track Wheel	25	N 258	Fork Pulley Hook.	25
N 125	Pulley Clevis	25	N 259	Fork Pulley Sheave	50
N 194 R	Stop, R. H.	50	N 266	Stop Block Plunger	15
N 194 L	Stop, L. H.	50	N 270	Car Frame	1 50
N 228	Rope Sheave on Car. . .	25		Fork Pulley Pin	05
N 255	Locking Grip, R. H. . . .	25		All Bolts.	05
N 256	Locking Grip, L. H. . . .	25			

Price List of Repairs for No. 20 Steel Track Swivel and Reversible Sling Carrier

In Effect February 3, 1908

No. of Part.	Description.	Price each.	No. of Part.	Description.	Price each.
N 18½	Rope Sheave.	\$0 25	N 415	Stop Block.	\$0 50
N 275	Bushing for Pulley.	10	N 416	Clevis for Double Hoist.	25
N 301 A	Track Wheel.	25	N 417	Idler.	10
N 400	Main Frame.	2 00	N 418	Draft Rope Sheave — Raw Hide Bushed.	75
N 401	Wheel Truck.	40	N 419	Bumper Plunger Rod.	15
N 402	Swivel Frame, Left.	3 00	N 420	Bumper and Trip Lever Link.	10
N 403	Swivel Frame, Right.	1 00	N 421	Lock and Plunger Link.	10
N 404	Cross-Head Brace.	90	N 422	Anti-Friction Roller.	05
N 405	Stop Lock.	60	N 423	Track Wheel Axle Pins.	15
N 406	Plunger.	60	N 424	Shoulder Pins for Truck	20
N 407	Lower Plunger Guide.	25	N 425	Oval Head Pins, ¾ x 2¼	05
N 408	Grip Lever.	80	N 438	Lever Bushing.	05
N 409	Grip Jaw.	15	N 439	Draft Pulley Bushing.	05
N 410	Trip Rope Pulley Frame	15	N 442	Swivel Rope Hitch.	15
N 411	Trip Rope Sheave.	10	N 443	Cap for Rope Hitch.	10
N 412	Latch Bell Crank.	35		All Bolts.	05
N 413	Bumper Plate.	75		All Spring Cotters.	05
N 414	Pulley Frame for Triple Hoist.	45			

Price List of Repairs for No. 21 Wood Track Swivel and Reversible Sling Carrier

In Effect February 3, 1908

No. of Part.	Description.	Price each.	No. of Part.	Description.	Price each.
N 18½	Rope Sheave.	\$0 25	N 417	Idler.	\$0 10
N 19	Track Wheel.	25	N 418	Draft Rope Sheave—Raw Hide Bushed.	75
N 275	Bushing for Pulley.	10	N 419	Bumper Plunger Rod.	15
N 402	Swivel Frame, Left.	3 00	N 420	Bumper and Trip Lever Link.	10
N 403	Swivel Frame, Right.	1 00	N 421	Lock and Plunger Link.	10
N 404	Cross-Head Brace.	90	N 422	Anti-Friction Roller.	05
N 405	Stop Lock.	60	N 425	Oval Head Pins, ¾ x 2¼.	05
N 406	Plunger.	60	N 439	Draft Pulley Bushing.	05
N 407	Lower Plunger Guide.	25	N 440	Main Frame.	3 75
N 408	Grip Lever.	80	N 441	Stop Block.	90
N 409	Grip Jaw.	15	N 442	Swivel Rope Hitch.	15
N 410	Trip Rope Pulley Frame	15	N 443	Cap for Rope Hitch.	10
N 411	Trip Rope Sheave.	10	N 445	Track Wheel Axle Pins.	20
N 412	Latch Bell Crank.	35		All Bolts.	05
N 413	Bumper Plate.	75		All Spring Cotters.	05
N 414	Pulley Frame for Trip- le Hoist.	45			
N 416	Clevis for Double Hoist.	25			

Price List of Repairs for Nellis Single Harpoon Fork No. 12

No. of Part.	Description.	Price each.
N 100	Head and Plunger.	\$1 00
N 101	Hinge or Retaining Bar.	50
N 102	Plunger or Trigger in Latch.	20
N 103	Trip or Latch.	35
N 103½	Guard to Spear.	30
	Sides and Point or Main Body of Fork.	1 50
	Spur or Barb.	20
	Steel Pin.	20
	Small Coil Spring.	15
	Large Coil Spring.	15

**Price List of Repairs for Double Harpoon Forks
Nos. 15, 16 and 17**

No. of Part.	Description.	Price each.
N 114	Trip Lever.	\$0 30
N 115	Hay Retainer or Barb.	20

**Price List of Repairs for Double Harpoon Alfalfa Fork
No. 19**

No. of Part.	Description.	Price each.
H 66	Trip Lever.	\$0 30
H 67	Hay Retainer or Barb.	25

Price List of Repairs for "Diamond" Lock Lever Fork

No. of Part.	Description.	Price each.
H 138	Point or Barb.	\$0 25
H 159	Support for Cross-Bar.	20
H 231	Head.	50
H 232	Latch.	50
H 233	Cross Bar.	1 00
H 234	Guide Ring for Trip Rope.	25

**Price List of Repairs for Walker Single Harpoon Fork
No. 14**

No. of Part.	Description.	Price each.
W 1	Barb.	\$0 25
W 2	Link for Barb.	20
W 3	Lever.	40
W 4	Head.	1 00

Price List of Repairs for Single Harpoon Fork No. 18

No. of Part	Description	Price each
40	Malleable Iron Main Bar.	\$1.00
41	Guard. ....	.30
42	Guard. ....	.30
43	Trigger. ....	.20

Price List of Repairs for Grapple Forks, with Spear, Nos. 5 and 6

No. of Part.	Description.	Price each.
H 70	Malleable Head.....	\$1 25
H 71	Malleable Trip Lever.....	30
H 72	Malleable Spear.....	1 25
H 73	Spring Bolt.....	15
H 77	Trip Rope Pulley.....	20
	Coil Spring.....	15

Price List of Repairs for Grapple Forks, Automatic, Nos. 7 and 8

No. of Part.	Description.	Price each.
H 133	Trip Latch.....	\$0 50
H 139	Case for Spring.....	25
H 140	Plunger for Trip Latch.....	15
H 163	Catch for Latch.....	20
H 174	Head.....	1 00

Price List of Repairs for Jackson Fork

No. of Part.	Description.	Price each.
H 13	Bracket for Bail.....	\$0 30
H 186	Center Brace.....	35
H 187	End Brace, Right Side.....	30
H 188	End Brace, Left Side.....	30
H 229	Latch Plate (replaces H 196).....	1 00
H 230	Latch, improved.....	30
	Bail.....	1 75
	Tine.....	1 25
	Spring.....	15

Price List of Repairs for California Derrick Fork

No. of Part.	Description.	Price each.
H 13	Bracket for Bail.....	\$0 30
H 15	Brace for Middle Prong.....	30
H 18	Brace, Left Side, End Prong.....	30
H 19	Brace, Right Side, End Prong.....	30
H 229	Latch Plate.....	1 00
H 230	Latch (improved).....	30
	Bail.....	1 75
	Tine.....	1 25
	Spring.....	15

“W. & B.” LAWN MOWERS.

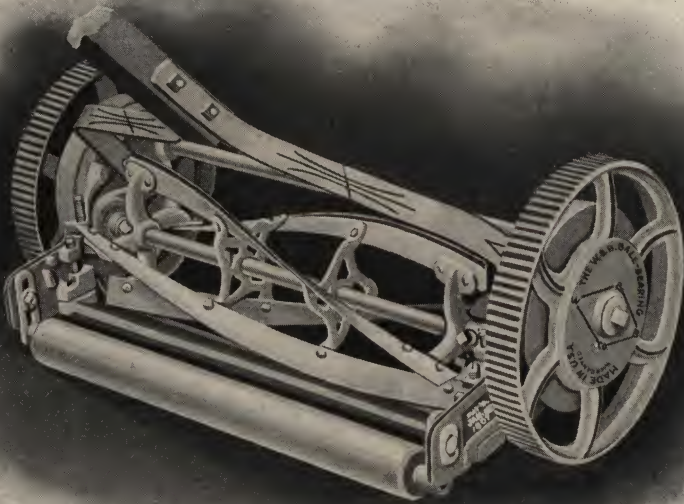
We call your especial attention to our line of “W. & B.” Lawn Mowers, shown on pages 178 to 190.

Our line includes both Ball Bearing and Self Aligning Parallel Bearing Machines, in strictly high grade, medium priced and low priced Mowers.

Our Patented Ball Bearing Adjusting Device used on all our Ball Bearing Mowers, is the most effective and simple on the market today.

The balls used are of the highest grade, perfectly ground to size, the cups and cones are uniformly hardened and carefully ground insuring long life and light draft.

All our Mowers are well built of first class material and are fully warranted against defects in material and workmanship.



The "W.&B." Ball-Bearing Lawn Mower

A strictly high-grade machine, fitted with the best quality steel balls, cups and cones, perfectly ground and dust-proof and our Patented Ball Bearing Adjusting Device, which is simple but positive.

The adjustment is easily and quickly made by turning the adjusting collar and tightening the set screw.

The Reel is adjusted to the Cutter Bar by our perfect locking device shown on this page.

The Frame is strong and rigid.

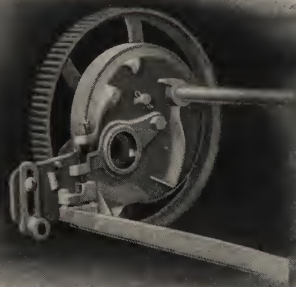
Made in 14, 16, 18 and 20-inch sizes.

Wheels, 10 inches in diameter.

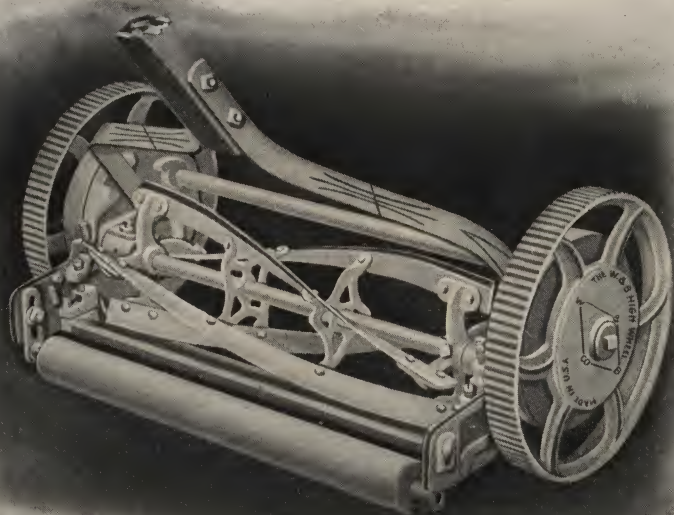
Reel, $5\frac{3}{4}$ inches in diameter, four blades.

Finished in white and gold neatly striped in red.

All material used is of the highest grade and this mower is unequalled for light running qualities and smooth work.



Sectional view showing method of adjusting Reel to Cutter Bar on our "W. & B." Ball-Bearing. "W. & B." High Wheel and "New Diamond" Mowers.



The "W. & B." High Wheel Lawn Mower

In this Machine, an absolutely rigid frame is produced by bolting casings solidly to the Cutter Bar and to a Tie Rod of 11-16-inch Cold Rolled Steel.

The Reel is adjusted to the Cutter Bar by our perfect locking device, same as on our "W. & B." Ball Bearing Mower,

The Reel Bearings are of Phosphor Bronze and adjustable to take up wear.

The Three Pawl Ratchet, which is shown on this page, is positive, quick acting and practically indestructible.

Made in 14, 16, 18 and 20-inch sizes.

Reel, $5\frac{3}{4}$ inches in diameter, four blades.

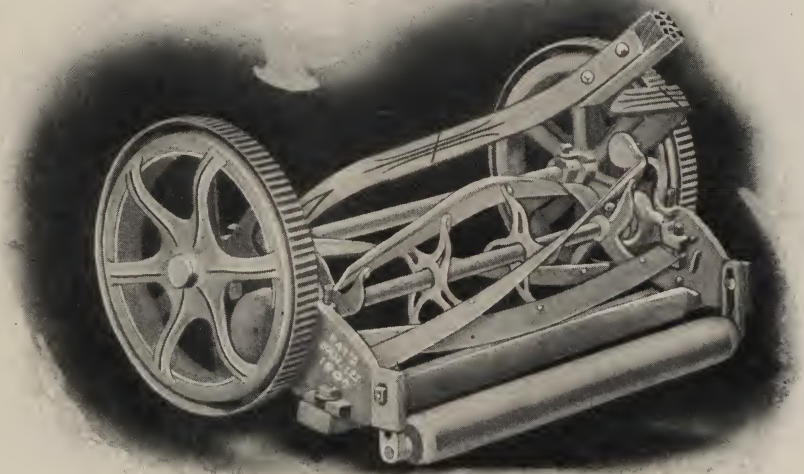
Wheels, 10 inches in diameter.

Finished in Willow Green and Gold, striped in Green, Gold and Red.

This Mower is built of the best material throughout and is warranted to be of the highest grade.



View showing Ratchet on our
"W. & B." Ball-Bearing and "W. & B."
High Wheel Mowers.



The "New Diamond" Ball-Bearing Lawn Mower

A Mower of great strength and durability, fitted with our Patented Ball-Bearing Adjusting Device and the best quality steel balls, cups and cones, perfectly ground and dust-proof.

The Reel is adjustable to the Cutter Bar and held firmly in adjustment by our Reel Locking Device, same as used on the "W. & B." Ball-Bearing Mower.

All wearing parts are adjustable.

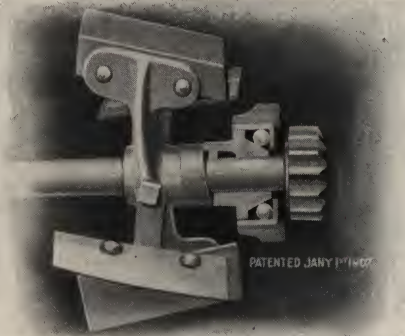
Made in 12, 14, 16, 18 and 20-inch sizes.

Adjustable reel, $5\frac{3}{4}$ inches in diameter, four blades.

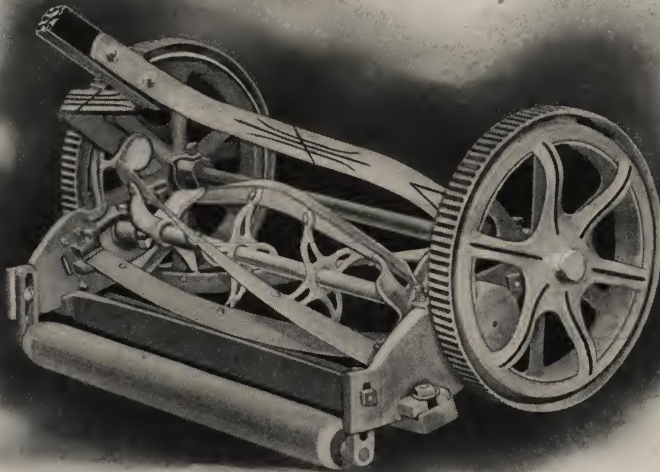
Wheels, 10 inches in diameter.

Finished—Wheels, Red; Casings, White; Reel, Tie Rod and Cutter Bar, Gold.
All attractively striped.

A light running machine and noiseless in operation.



Sectional View of Cup and Cone
showing method of fitting cone to shaft on all
our Ball-Bearing Mowers



The "New Diamond" Lawn Mower

This Mower is of the same construction as our "New Diamond" Ball-Bearing Mower except that it is built with Phosphor Bronze Reel Shaft Bearings, self aligning and adjustable.

The Wheels turn on a polished steel spindle, which, with their great height, reduces draft to a minimum.

The Ratchet, the strongest made, is simple and positive in action.

All working parts are incased and thoroughly protected from dust.

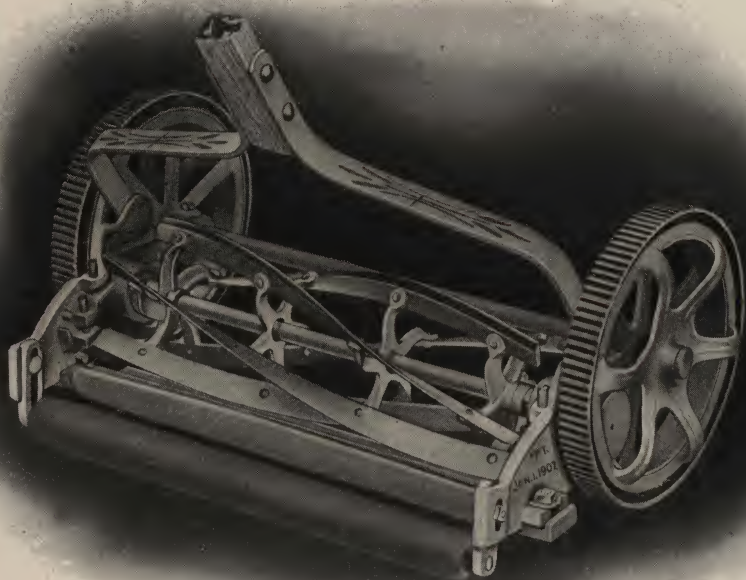
Made in 12, 14, 16, 18 and 20-inch sizes.

Adjustable reel, $5\frac{3}{4}$ inches in diameter, four blades.

Wheels, 10 inches in diameter.

Finished—Wheels, Blue; Casings, White; Reel, Tie Rod and Cuffer Bar, Gold. Striped in Gold and Blue.

This machine is fully guaranteed against defects in material and workmanship and to do first-class work.



The "Diamond Special" Ball-Bearing Lawn Mower

This Machine is built of material of highest quality and is fitted with our Patented Ball-Bearing Adjusting Device. The balls, cups and cones are of high grade, uniformly hardened, polished and dust proof.

The Reel has five Blades of best knife steel and is adjusted to the Cutter Bar by our Special Adjusting and Locking Device.

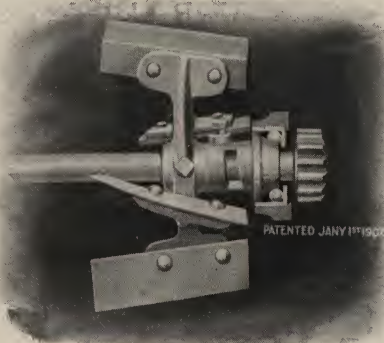
Made in 12, 14, 16, 18 and 20-inch sizes.

Adjustable Reel, $5\frac{3}{4}$ inches in diameter, five blades.

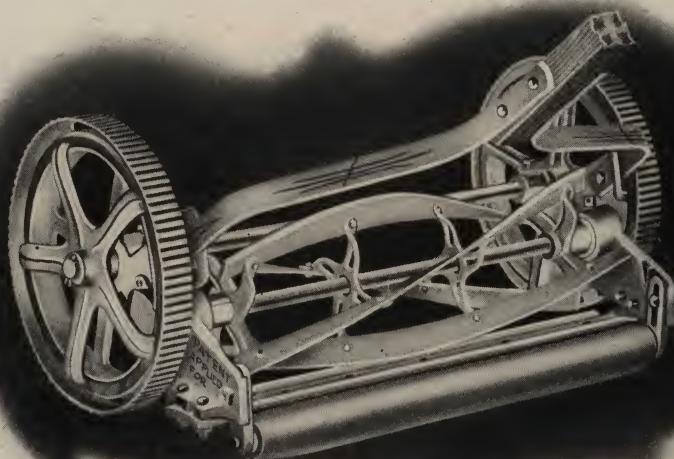
Wheels, 10 inches in diameter.

Finished - Wheels, Reel, Cutter Bar and Handle Braces, Gold. Casings and Tie Rod, White. Striped in Black and Gold.

This Machine is unexcelled for even cutting and long wearing quality.



View of Cup and Cone showing Collar for Adjusting Cone on all our Ball-Bearing Mowers



The "W. & B." Automatic Ball-Bearing Lawn Mower

This Mower is fitted with a special device by which the Ball-Bearing Cones are automatically adjusted and require no attention from the person using the Machine.

The Reel Bearings being at all times in perfect adjustment, a correct contact between the Reel Knives and Cutter Bar Blade, which is necessary to produce perfect cutting, is insured; an advantage which will be readily appreciated by all users of Lawn Mowers.

The Balls, Cups and Cones are of high quality and dust-proof.

The Frame is strong and rigid and the Mower is carefully constructed throughout.

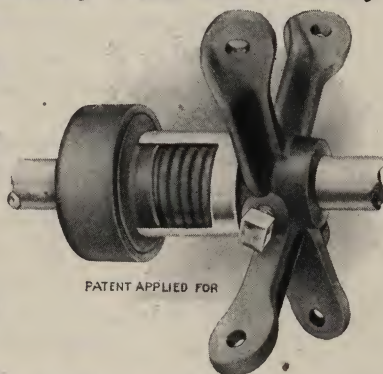
Made in 14, 16, 18 and 20-inch sizes.

Reel, $5\frac{3}{4}$ inches in diameter, four blades

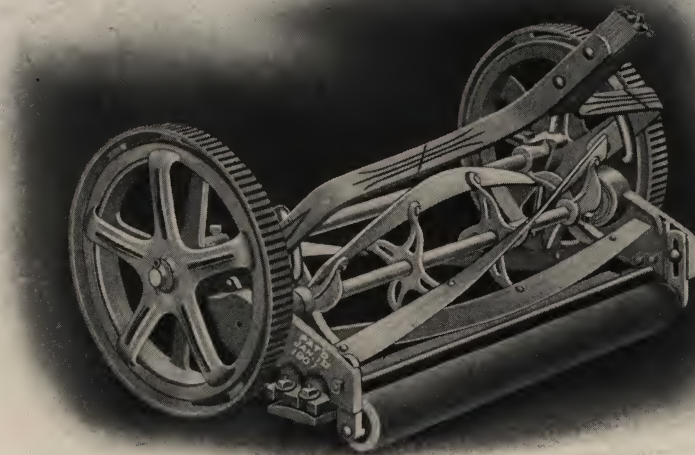
Wheels, 10 inches in diameter.

Finished attractively in Apple Green, Red and Aluminum, neatly striped in Black and Gold.

For light draft, and ease in operation this Machine is unexcelled.



Detail View of Automatic Adjustment for
"W. & B." Automatic Ball-Bearing
Lawn Mower.



The "W. & B." Junior Ball-Bearing Lawn Mower

This Mower is fitted with our Patented Ball-Bearing Adjustment, the simplest and most effective made and the highest quality steel balls, cups and cones, uniformly hardened, accurately ground and dust-proof.

The Frame is strong and rigid and all working parts are incased to protect them from dust.

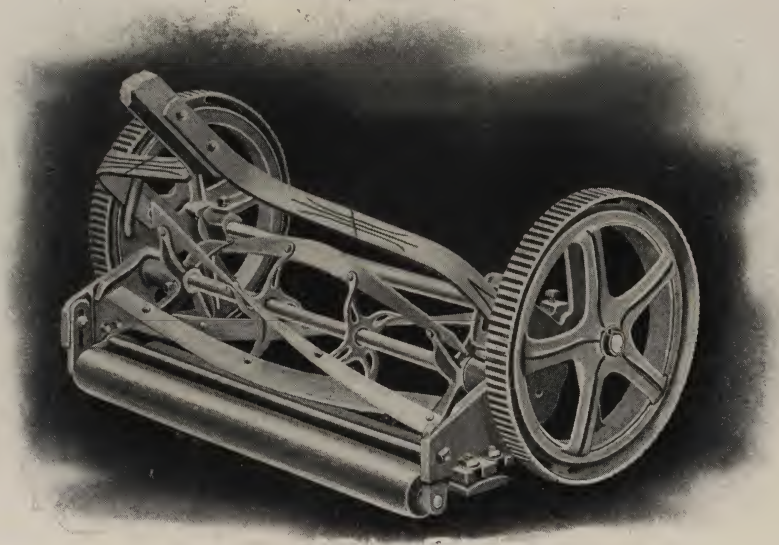
Made in 14, 16, 18 and 20-inch sizes.

Reel, $5\frac{3}{4}$ inches in diameter, four blades.

Wheels 10 inches in diameter.

Finished—Wheels and Casings, Gold; Reel, Tie Rod and Cutter Bar, Aluminum. Neatly striped in red.

This Mower is built of high-grade material throughout and is of exceptionally light draft.



The "W. & B." Junior Lawn Mower

This Mower is built on the same lines as our "W. & B." Junior Ball-Bearing except that it is fitted with self aligning, adjustable Reel Shaft Bearings.

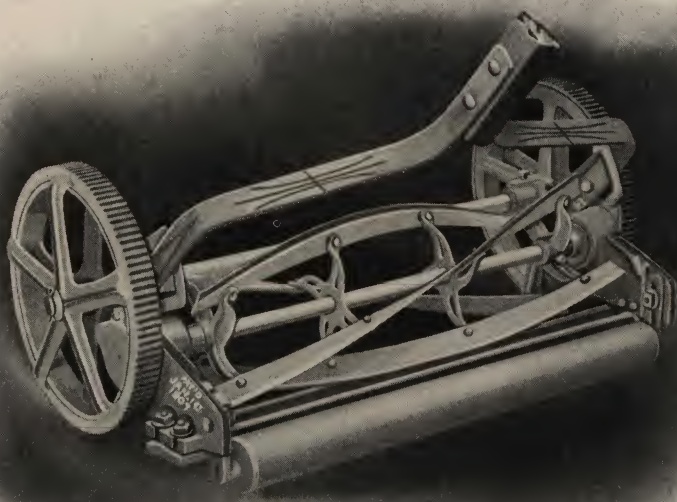
Made in 14, 16, 18 and 20-inch sizes.

Reel, $5\frac{3}{4}$ inches in diameter, four blades.

Wheels, 10 inches in diameter,

Finished Wheels and Casings, Light Blue; Reel, Tie Rod and Cutter Bar, Gold. All neatly striped.

This machine is fully guaranteed and is very easy running.



The "New Electric" Ball-Bearing Lawn Mower

This Machine is fitted with our Patented Ball-Bearing Adjustment and our high-grade hardened steel balls, cups and cones, ground, polished and dust-proof.

The Reel Shaft is of cold rolled steel and the Reel Knives are from the best grade knife steel, perfectly ground.

The Frame is strong and rigid.

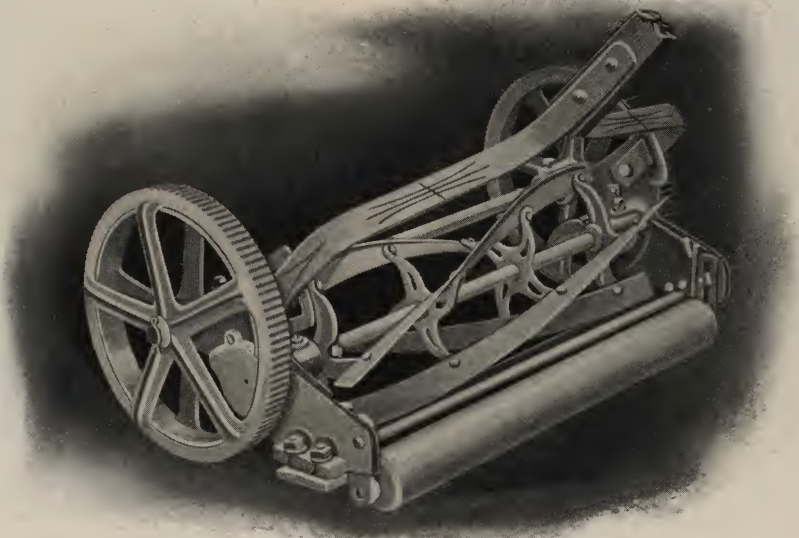
Made in 12, 14, 16 and 18-inch sizes.

Reel, $5\frac{3}{4}$ inches in diameter, four blades.

Wheels, 9 inches in diameter.

Attractively finished in Gold, striped in Red.

This Mower is warranted against defective material and workmanship, is of light draft and will give good service.



The "New Electric" Lawn Mower

This Mower is of the same general construction as the "New Electric" Ball-Bearing Mower, except that the reel runs in self aligning, adjustable, parallel bearings.

All working parts are thoroughly incased to protect them from dirt.

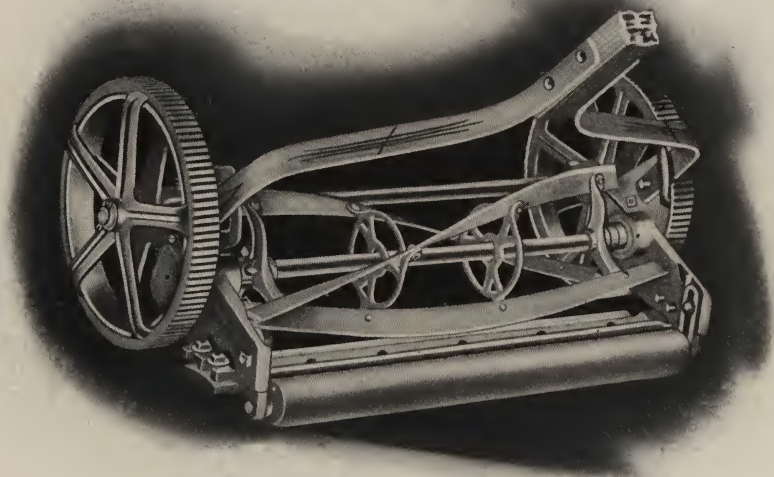
Made in 12, 14, 16 and 18-inch sizes.

Reel, $5\frac{3}{4}$ inches in diameter, four blades.

Wheels, 9 inches in diameter.

Finished—Wheels, Casings, Reel, Tie Rod and Cutter Bar, Aluminum; Handle Braces, Red. Neatly striped.

We recommend this Mower to trade, desiring a good, serviceable and light running machine at a moderate price.



The "New Norka" Ball-Bearing Lawn Mower

This is a low-priced Ball-Bearing Mower, but not a cheap Machine.

It is built of first-class material throughout, strong and well finished.

It is fitted with our Patented Ball-Bearing Adjustment, and balls, cups and cones of high quality, carefully hardened, ground and dust-proof.

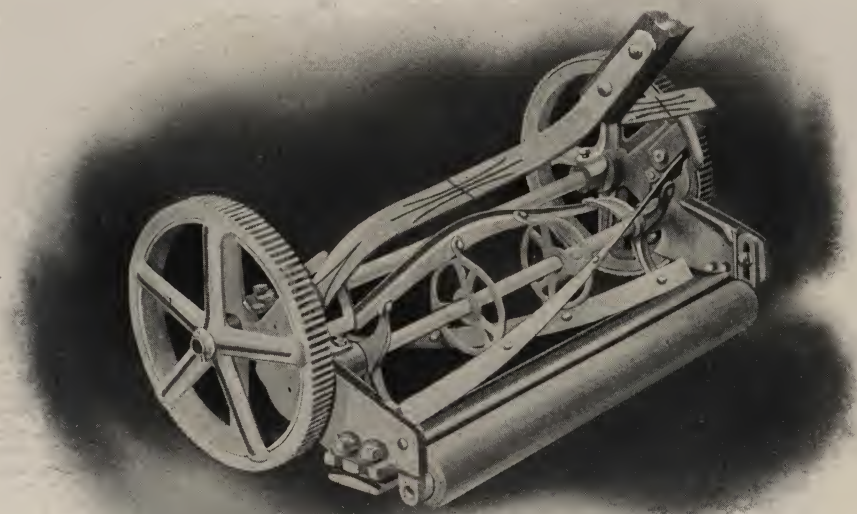
Made in 12, 14, 16 and 18-inch sizes.

Reel, $5\frac{3}{4}$ inches in diameter, three blades, continuous shear.

Wheels, 9 inches in diameter.

Finished—Wheels and Casings, Grass Green; Reel and Cutter Bar, Red. Neatly striped in Red.

This is the best low-priced Ball-Bearing Lawn Mower on the market.



The "New Norka" Lawn Mower

This Mower is built along the same lines as our "New Norka" Ball-Bearing Mower, except that the reel runs in self aligning, adjustable, parallel bearings.

The Wheels are large and run on a polished steel spindle.

The Ratchet Clutch is cast solid with the pinion, and is one of the strongest and simplest made.

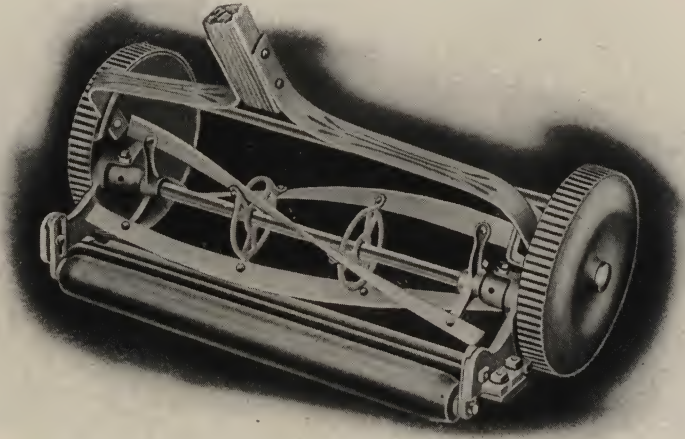
Made in 12, 14, 16 and 18-inch sizes.

Reel, $5\frac{1}{4}$ inches in diameter, three blades.

Wheels, 9 inches in diameter.

Finished in Dark Green with Gold Striping.

We warrant this Mower against defects in material and workmanship.



The "Calumet" Lawn Mower

While this is a low priced Machine it is well built, of good material and will give as satisfactory service as any Mower of its class on the market.

The Three Blade Reel is a continuous shear and runs in Adjustable Self Aligning Bearings.

Made in 12, 14, 16 and 18-inch sizes.

Reel, $5\frac{3}{4}$ inches, three blades.

Wheels, 8 inches in diameter.

Finished in Green striped in Red.

This Mower is guaranteed against defective material and workmanship.

The "Diamond" Lawn Edger and Trimmer

This tool is for trimming the edges of lawns along cement walks, drive-ways and gravel walks and may also be used for outlining flower beds, of various shapes, such as stars, circles, diamonds, crescents, etc.

The "U" shaped plow is made with a sharp cutting front blade and a rear wing to throw the sod over the walk, clear of the edge that has been trimmed, so that no digging or cleaning of the furrow is required.

The wheel is adjustable for high or low cutting and the edger will work as well on a lawn that grows above the level of the walk as below.

The wheel also serves the purpose of a depth gauge and will regulate the furrow to a uniform depth.

The handle is adjustable to fit the height of the operator.

The entire machine is well made and strong, nicely finished and is easily operated.



Views showing a cement walk, untrimmed, the "Diamond" Lawn Edger and Trimmer in use, and the same walk trimmed by the Edger.

The "Diamond" Grass Catcher



This Hook
bolts to
Mower for
attaching
Catcher.

This Catcher is made with a heavy canvas body and galvanized iron bottom, and is very strong and light.

It will fit any lawn mower on the market, and can be easily and quickly attached or detached.

All material is of highest quality and the "Diamond" Grass Catcher will give longer and better service than any other made.

Made in two sizes—

No. 1 for 12, 14 and 16 inch Mowers.

No. 2 for 16, 18 and 20 inch Mowers.

Price List of Repairs for the "W. & B." Ball Bearing Lawn Mower

NAME		Price Each	NAME		Price Each
P 18 B	Wheel	\$1.00		Cutter Bar complete with	
P 67	Casing, R .....	.90		Blade, 18"	\$2.00
P 68	Casing, L .....	.90		Cutter Bar complete with	
P 71	Reel Arm, R .....	.15		Blade, 20"	2.40
P 72	Reel Arm, L .....	.15		Reel complete, 12"	2.25
P 179	Cone .....	.25		Reel complete, 14"	2.50
P 22	Internal Gear .....	.50		Reel complete, 16"	2.75
P 24	Pinion .....	.10		Reel complete, 18"	3.00
P 25	Pawl .....	.10		Reel complete, 20"	3.25
P 26	Wheel Washer .....	.05		Reel Shaft .....	.50
P 28	End Spider .....	.25		Tie Rod .....	.50
P 29	Center Spider .....	.20		Handle Braces, per pair...	.50
P 30	Roller Hanger .....	.10		Roller .....	.25
P 184	Collar to adjust Cone...	.10		Handle .....	.50
P 52	Wrench .....	.10	A	Ball Retainer only .....	.25
P 73 X	Cutter Bar only, 12"....	.50		Steel Balls 5-16" set of 16..	.35
P 74 X	Cutter Bar only, 14"....	.60	B	Cup for Ball Bearing .....	.35
P 75 X	Cutter Bar only, 16"....	.70	D	Gudgeon for Roller .....	.10
P 76 X	Cutter Bar only, 18"....	.80	E	Handle Clip .....	.10
P 77 X	Cutter Bar only, 20"....	1.00	F	Drive Pin for Pinion .....	.05
P 185	Lower Cap for Handle..	.10	G	Spring Cotter .....	.05
P 186	Upper Cap for Handle..	.10	I	Tie Rod Set Screw, $\frac{3}{8}$ "x $\frac{1}{2}$ "..	.05
	Cutter Bar Blade only, 12"...	1.00	K	Set Screw for adjusting Col-	
	Cutter Bar Blade only, 14"...	1.15		lar and for Spider .....	.05
	Cutter Bar Blade only, 16"...	1.15	M	Adjusting Screw for Reel...	.10
	Cutter Bar Blade only, 18"...	1.25	N	Cap Screw for Cutter Bar..	.05
	Cutter Bar Blade only, 20"...	1.40	P	Cap Screw for Reel Arm...	.05
	Cutter Bar complete with		R	Cap Screw for Wheel .....	.10
	Blade, 12"	1.00	S	Machine Screw for Cutter	
	Cutter Bar complete with			Bar Blade .....	.05
	Blade, 14"	1.75	T	Joint Bolt for Handle .....	.10
	Cutter Bar complete with		U	Handle Brace Bolt .....	.10
	Blade, 16"	1.85	X	Roller Hanger Bolt .....	.05

Price List of Repairs for "W. & B." High Wheel Lawn Mower

NAME		Price Each	NAME		Price Each
P 18	Wheel	\$1.00		Cutter Bar complete with	
P 67	Casing, R .....	.90		Blade, 14"	\$1.75
P 68	Casing, L .....	.90		Cutter Bar complete with	
P 22	Internal Gear .....	.50		Blade, 16"	1.85
P 24	Ratchet Pinion .....	.10		Cutter Bar complete with	
P 25	Pawl .....	.10		Blade, 18"	2.00
P 26	Wheel Washer .....	.05		Cutter Bar complete with	
P 28	End Spider .....	.25		Blade, 20"	2.40
P 29	Center Spider .....	.20		Reel complete, 12"	2.25
P 30	Roller Hanger .....	.10		Reel complete, 14"	2.50
	Cutter Bar Blade only, 12"...	1.00		Reel complete, 16"	2.75
	Cutter Bar Blade only, 14"...	1.15		Reel complete, 18"	3.00
	Cutter Bar Blade only, 16"...	1.15		Reel complete, 20"	3.25
	Cutter Bar Blade only, 18"...	1.25		Reel Shaft .....	.40
	Cutter Bar Blade only, 20"...	1.40	P 69	Reel Arm, R .....	.15
	Cutter Bar complete with		P 70	Reel Arm, L .....	.15
	Blade, 12"	1.50	P 52	Wrench .....	.10

Continued on next page.

In ordering extra parts give the name of the machine, length of the cutter bar and the number that is on the part wanted.

Price List of Repairs for "W. & B." High Wheel Lawn Mower—Continued.

		Price Each			Price Each
	NAME			NAME	
P 47	Brass Bushing.....	\$0.15	G	Spring Cotter	\$0.05
P 73 X	Cutter Bar only, 12"....	.50	I	Tie Rod Set Screw, $\frac{3}{8}$ "x $\frac{1}{2}$ "..	.05
P 74 X	Cutter Bar only, 14"....	.60	K	Set Screw for Spider.....	.05
P 75 X	Cutter Bar only, 16"....	.70	L	Set Screw and Lock Nut for	
P 76 X	Cutter Bar only, 18"....	.80		adjusting Reel Bearing ..	.10
P 77 X	Cutter Bar only, 20"....	1.00	M	Adjusting Screw for Reel...	.05
P 185	Lower Cap for Handle..	.10	N	Cap Screw for Cutter Bar..	.05
	Tie Rod .....	.50	P	Cap Screw for Reel Arm...	.05
	Handle Braces, per pair....	.50	R	Cap Screw for Wheel.....	.10
	Roller .....	.25	S	Machine Screw for Cutter	
	Handle .....	.50		Bar Blade .....	.05
D	Gudgeon for Roller.....	.10	T	Joint Bolt for Handle.....	.10
E	Handle Clip .....	.10	U	Handle Brace Bolt.....	.10
F	Drive Pin for Pinion.....	.05	X	Roller Hanger Bolt.....	.05

Price List of Repairs for "Diamond" Special Ball Bearing Lawn Mower

	NAME	Price Each		NAME	Price Each
P 194	Wheel	\$1.00		Reel complete, 20".....	\$3.25
P 137	Casing, R .....	.90		Reel Shaft .....	.40
P 138	Casing, L .....	.90		Tie Rod .....	.50
P 139 $\frac{1}{2}$	Reel Arm, R.....	.15		Handle Braces, per pair..	.45
P 140 $\frac{1}{2}$	Reel Arm, L.....	.15		Roller .....	.25
P 105	Pinion Cover .....	.10		Handle .....	.50
P 106	Ratchet Pinion, R.....	.10	A	Ball Retainer only.....	.25
P 107	Ratchet Pinion, L.....	.10		Steel Balls, 5-16", per	
P 108	Roller Hanger .....	.10		set of 16.....	.35
P 193	Wheel Washer .....	.05	B	Cup for Ball Bearing...	.35
P 170	End Spider .....	.15	C	Reel Arm Bolt.....	.10
P 171	Center Spider .....	.10	D	Gudgeon for Roller....	.10
P 52	Wrench .....	.10	E	Handle Clip .....	.10
P 141	Cutter Bar Complete, 12"	.60	F	Pawl .....	.05
P 142	Cutter Bar Complete, 14"	.70	G	Spring Cotter .....	.05
P 143	Cutter Bar Complete, 16"	.80	H	Tie Rod Set Screw, $\frac{3}{8}$ x	
P 144	Cutter Bar Complete, 18"	.90		$\frac{5}{8}$" .....	.05
P 145	Cutter Bar Complete, 20"	1.00	K	Set Screw for Spider	
P 179	Cone .....	.25		and Adjusting Collar..	.05
P 184	Collar to adjust Cone...	.10	M	Adjusting Screw for Reel	.10
P 185	Lower Cap for Handle..	.10	T	Joint Bolt for Handle...	.10
	Reel complete, 12".....	2.25	U	Handle Brace Bolt .....	.10
	Reel complete, 14".....	2.50	W	Cutter Bar Bolt.....	.05
	Reel complete, 16".....	2.75	X	Roller Hanger Bolt.....	.05
	Reel complete, 18".....	3.00	Z	Pinion Cap Bolt.....	.05

Price List of Repairs for "W & B" Automatic Ball Bearing Lawn Mower

	NAME	Price Each		NAME	Price Each
P 188	Wheel	\$0.90	P 122	Center Spider	\$0.10
P 151 $\frac{1}{2}$	Casing, R. ....	.75	P 87	Roller Hanger .....	.10
P 152 $\frac{1}{2}$	Casing, L. ....	.75	P 157	Wheel Washer .....	.05
P 153	Pinion Cover, L.....	.10	P 52	Wrench .....	.10
P 154	Pinion Cover, R.....	.10	P 162	Cutter Bar complete, 10"	.50
P 165	Ratchet Pinion, R.....	.10	P 158	Cutter Bar complete, 12"	.60
P 166	Ratchet Pinion, L.....	.10	P 159	Cutter Bar complete, 14"	.70
P 121	End Spider .....	.15	P 160	Cutter Bar complete, 16"	.80

Continued on next page.

In ordering extra parts give the name of the machine, length of the cutter bar and the number that is on the part wanted.

Price List of Repairs for "W & B" Automatic Ball Bearing Lawn Mower

Continued.

	NAME	Price Each		NAME	Price Each
P 161	Cutter Bar complete, 18"	\$0.90		Steel Balls, 5-16" per set	
P 161½	Cutter Bar complete, 20"	1.00		of 16	\$0.35
P 212	Cone .....	.20	B	Cup for Ball Bearing...	.35
P 185	Lower Cap for Handle..	.10	D	Gudgeon for Roller....	.10
	Reel complete, 10".....	1.50	E	Handle Clip .....	.10
	Reel complete, 12".....	1.75	F	Pawl .....	.05
	Reel complete, 14".....	2.00	G	Spring Cotter .....	.05
	Reel complete, 16".....	2.25	H	Tie Rod Set Screw, ⅜"x	
	Reel complete, 18".....	2.50		⅝" .....	.05
	Reel complete, 20".....	2.75	J	Cutter Bar Adjusting	
	Reel Shaft .....	.30		Screw .....	.05
	Tie Rod .....	.40	K	Set Screw for Spider and	
	Handle Braces, per pair.	.45		adjusting collar .....	.05
	Roller .....	.25	T	Joint Bolt for Handle...	.10
	Handle .....	.50	U	Handle Brace Bolt.....	.10
B2	Cone Adjusting Spring..	.10	V	Cutter Bar Bolt.....	.05
B3	Sleeve for Cone Adjust-		X	Roller Hanger Bolt.....	.05
	ing Spring .....	.15	Y	Pinion Cap Bolt.....	.05
A	Ball Retainer only.....	.25			

Price List of Repairs for "New Diamond" Ball Bearing Lawn Mower

	NAME	Price Each		NAME	Price Each
P 194	Wheel	\$1.00		Reel complete, 20".....	\$2.75
P 137	Casing, R .....	.90		Reel Shaft .....	.40
P 138	Casing, L .....	.90		Tie Rod .....	.50
P 139½	Reel Arm, R.....	.15		Handle Braces, per pair	.45
P 140½	Reel Arm, L.....	.15		Roller .....	.25
P 105	Pinion Cover .....	.10		Handle .....	.50
P 106	Ratchet Pinion, R.....	.10	A	Ball Retainer only.....	.25
P 107	Ratchet Pinion, L.....	.10		Steel Balls, 5-16", per	
P 108	Roller Hanger .....	.10		set of 16 .....	.35
P 193	Wheel Washer .....	.05	B	Cup for Ball Bearing...	.35
P 121	End Spider .....	.15	C	Reel Arm Bolt .....	.10
P 122	Center Spider .....	.10	D	Gudgeon for Roller ....	.10
P 52	Wrench .....	.10	E	Handle Clip .....	.10
P 141	Cutter Bar complete, 12"	.60	F	Pawl .....	.05
P 142	Cutter Bar complete, 14"	.70	G	Spring Cotter .....	.05
P 143	Cutter Bar complete, 16"	.80	H	Tie Rod Set Screw,	
P 144	Cutter Bar complete, 18"	.90		⅝"x⅝" .....	.05
P 145	Cutter Bar complete, 20"	1.00	K	Set Screw for Spider and	
P 179	Cone .....	.25		Adjusting Collar ....	.05
P 184	Collar to adjust Cone...	.10	M	Adjusting Screw for Reel	.10
P 185	Lower Cap for Handle...	.10	T	Joint Bolt for Handle..	.10
	Reel complete, 12".....	1.75	U	Handle Brace Bolt .....	.10
	Reel complete, 14".....	2.00	W	Cutter Bar Bolt .....	.05
	Reel complete, 16".....	2.25	X	Roller Hanger Bolt.....	.05
	Reel complete, 18".....	2.50	Z	Pinion Cap Bolt .....	.05

In ordering extra parts give the name of the machine, length of the cutter bar and the number that is on the part wanted.

Price List of Repairs for "New Diamond" Lawn Mower

	NAME	Price Each		NAME	Price Each
P 194	Wheel	\$1.00		Reel complete, 18".....	\$2.50
P 137	Casing, R .....	.90		Reel complete, 20".....	2.75
P 138	Casing, L .....	.90		Reel Shaft .....	.40
P 139	Reel Arm, R.....	.15		Handle Braces, per pair ..	.45
P 140	Reel Arm, L.....	.15		Roller .....	.25
P 105	Pinion Cover .....	.10		Handle .....	.50
P 106	Ratchet Pinion, R.....	.10	C	Reel Arm Bolt .....	.10
P 107	Ratchet Pinion, L.....	.10	D	Gudgeon for Roller ....	.10
P 108	Roller Hanger .....	.10	E	Handle Clip .....	.10
P 136	Wheel Washer .....	.05	F	Pawl .....	.05
P 121	End Spider .....	.15	G	Spring Cotter .....	.05
P 122	Center Spider .....	.10	H	Tie Rod Set Screw,	
P 52	Wrench .....	.10		$\frac{3}{8}$ " x $\frac{5}{8}$" .....	.05
P 47	Brass Bushing .....	.15	K	Set Screw for Spider...	.05
P 141	Cutter Bar complete, 12" ..	.60	L	Set Screw and Lock Nut	
P 142	Cutter Bar complete, 14" ..	.70		for Adjusting Reel	
P 143	Cutter Bar complete, 16" ..	.80		Bearings .....	.10
P 144	Cutter Bar complete, 18" ..	.90	M	Adjusting Screw for Reel ..	.10
P 145	Cutter Bar complete, 20" ..	1.00	T	Joint Bolt for Handle...	.10
P 185	Lower Cap for Handle...	.10	U	Handle Brace Bolt.....	.10
	Tie Rod .....	.50	W	Cutter Bar Bolt .....	.05
	Reel complete, 12".....	1.75	X	Roller Hanger Bolt.....	.05
	Reel complete, 14".....	2.00	Z	Pinion Cap Bolt.....	.05
	Reel complete, 16".....	2.25			

Price List of Repairs for "W. & B." Junior Ball Bearing Lawn Mower

	NAME	Price Each		NAME	Price Each
P 188	Wheel	\$0.90		Reel complete, 18".....	\$2.50
P 151½	Casing, R. ....	.75		Reel complete, 20".....	2.75
P 152½	Casing, L. ....	.75		Reel Shaft .....	.30
P 153	Pinion Cover, L.....	.10		Tie Rod .....	.40
P 154	Pinion Cover, R.....	.10		Handle Braces, per pair ..	.45
P 165	Ratchet Pinion, R.....	.10		Roller .....	.25
P 166	Ratchet Pinion, L.....	.10		Handle .....	.50
P 121	End Spider .....	.15	A	Ball Retainer only.....	.25
P 122	Center Spider .....	.10		Steel Balls, 5-16" per set	
P 87	Roller Hanger .....	.10		of 16 .....	.35
P 157	Wheel Washer .....	.05	B	Cup for Ball Bearing....	.35
P 52	Wrench .....	.10	D	Gudgeon for Roller.....	.10
P 162	Cutter Bar complete, 10" ..	.50	E	Handle Clip .....	.10
P 158	Cutter Bar complete, 12" ..	.60	F	Pawl .....	.05
P 159	Cutter Bar complete, 14" ..	.70	G	Spring Cotter .....	.05
P 160	Cutter Bar complete, 16" ..	.80	H	Tie Rod Set Screw, $\frac{3}{8}$ x $\frac{5}{8}$ " ..	.05
P 161	Cutter Bar complete, 18" ..	.90	J	Cutter Bar Adjusting	
P 161½	Cutter Bar complete, 20" ..	1.00		Screw .....	.05
P 179	Cone .....	.20	K	Set Screw for Spider and	
P 184	Collar to adjust Cone...	.10		adjusting collar .....	.05
P 185	Lower Cap for Handle...	.10	T	Joint Bolt for Handle...	.10
	Reel complete, 10".....	1.50	U	Handle Brace Bolt.....	.10
	Reel complete, 12".....	1.75	V	Cutter Bar Bolt.....	.05
	Reel complete, 14".....	2.00	X	Roller Hanger Bolt.....	.05
	Reel complete, 16".....	2.25	Y	Pinion Cap Bolt.....	.05

In ordering extra parts give the name of the machine, length of the cutter bar and the number that is on the part wanted.

Price List of Repairs for "W. & B." Junior Lawn Mower

NAME	Price Each		NAME	Price Each
P 188 Wheel	\$0.90		Reel complete, 16".....	\$2.25
P 151 Casing, R. ....	.75		Reel complete, 18".....	2.50
P 152 Casing, L. ....	.75		Reel complete, 20".....	2.75
P 153 Pinion Cap, L.....	.10		Reel Shaft .....	.30
P 154 Pinion Cap, R.....	.10		Tie Rod .....	.40
P 165 Ratchet Pinion, R.....	.10		Handle Braces, per pair.	.45
P 166 Ratchet Pinion, L.....	.10		Roller .....	.25
P 121 End Spider .....	.15	D	Handle .....	.50
P 122 Center Spider .....	.10	E	Gudgeon for Roller....	.10
P 87 Roller Hanger .....	.10	F	Handle Clip .....	.10
P 157 Wheel Washer .....	.05	G	Pawl .....	.05
P 52 Wrench .....	.10	H	Spring Cotter .....	.05
P 89 Bushing .....	.15	J	Tie Rod Set Screw, $\frac{3}{8}$ x $\frac{5}{8}$ "	.05
P 162 Cutter Bar complete, 10".	.50		Cutter Bar Adjusting	
P 158 Cutter Bar complete, 12".	.60	K	Screw .....	.05
P 159 Cutter Bar complete, 14".	.70	L	Set Screw for Spider....	.05
P 160 Cutter Bar complete, 16".	.80		Set Screw and Lock Nut	
P 161 Cutter Bar complete, 18".	.90		for adjusting Reel	
P 161½ Cutter Bar complete, 20".	1.00	T	Bearings .....	.10
P 185 Lower Cap for Handle..	.10	U	Joint Bolt for Handle...	.10
Reel complete, 10".....	1.50	V	Handle Brace Bolt.....	.10
Reel complete, 12".....	1.75	X	Cutter Bar Bolt.....	.05
Reel complete, 14".....	2.00	Y	Roller Hanger Bolt.....	.05
			Pinion Cap Bolt.....	.05

Price List of Repairs for "New Electric" Ball Bearing Lawn Mower

NAME	Price Each		NAME	Price Each
P 208 Wheel	\$0.75		Reel complete, 16".....	\$2.25
P 151½ Casing, R. ....	.75		Reel complete, 18".....	2.50
P 152½ Casing, L. ....	.75		Reel Shaft .....	.30
P 153 Pinion Cover, L.....	.10		Tie Rod .....	.40
P 154 Pinion Cover, R.....	.10		Handle Braces, per pair.	.45
P 165 Ratchet Pinion, R.....	.10		Roller .....	.25
P 166 Ratchet Pinion, L.....	.10	A	Handle .....	.50
P 121 End Spider .....	.15		Ball Retainer only.....	.25
P 122 Center Spider .....	.10		Steel Balls, 5-16" per set	
P 87 Roller Hanger .....	.10	B	of 16 .....	.35
P 157 Wheel Washer .....	.05	D	Cup for Ball Bearing....	.35
P 52 Wrench .....	.10	E	Gudgeon for Roller....	.10
P 162 Cutter Bar complete, 10".	.50	F	Handle Clip .....	.10
P 158 Cutter Bar complete, 12".	.60	G	Pawl .....	.05
P 159 Cutter Bar complete, 14".	.70	H	Spring Cotter .....	.05
P 160 Cutter Bar complete, 16".	.80	J	Tie Rod Set Screw, $\frac{3}{8}$ x $\frac{5}{8}$ "	.05
P 161 Cutter Bar complete, 18".	.90		Cutter Bar Adjusting	
P 179 Cone .....	.20	K	Screw .....	.05
P 184 Collar to Adjust Cone...	.10	T	Set Screw for Spider and	
P 185 Lower Cap for Handle..	.10	U	adjusting collar .....	.05
Reel complete, 10".....	1.50	V	Joint Bolt for Handle....	.10
Reel complete, 12".....	1.75	X	Handle Brace Bolt.....	.10
Reel complete, 14".....	2.00	Y	Cutter Bar Bolt.....	.05
			Roller Hanger Bolt.....	.05
			Pinion Cap Bolt.....	.05

In ordering extra parts give the name of the machine, length of the cutter bar and the number that is on the part wanted.

Price List of Repairs for "New Electric" Lawn Mower

	NAME	Price Each		NAME	Price Each
P 208	Wheel	\$0.75		Reel complete, 16".....	\$2.25
P 151	Casing, R. ....	.75		Reel complete, 18".....	2.50
P 152	Casing, L. ....	.75		Reel Shaft .....	.30
P 153	Pinion Cap, L.....	.10		Tie Rod .....	.40
P 154	Pinion Cap, R.....	.10		Handle Braces, per pair..	.45
P 165	Ratchet Pinion, R.....	.10		Roller .....	.25
P 166	Ratchet Pinion, L.....	.10	D	Handle .....	.50
P 121	End Spider .....	.15	E	Gudgeon for Roller.....	.10
P 122	Center Spider .....	.10	F	Handle Clip .....	.10
P 87	Roller Hanger .....	.10	G	Pawl .....	.05
P 157	Wheel Washer .....	.05	H	Spring Cotter .....	.05
P 52	Wrench .....	.10	J	Tie Rod Set Screw $\frac{3}{8} \times \frac{5}{8}$ "	.05
P 89	Bushing .....	.15		Cutter Bar Adjusting	
P 162	Cutter Bar complete, 10".	.50	K	Screw .....	.05
P 158	Cutter Bar complete, 12".	.60	L	Set Screw for Spider....	.05
P 159	Cutter Bar complete, 14".	.70		Set Screw and Lock Nut	
P 160	Cutter Bar complete, 16".	.80		for adjusting Reel	
P 161	Cutter Bar complete, 18".	.90	T	Bearings .....	.10
P 185	Lower Cap for Handle... .10		U	Joint Bolt for Handle...	.10
	Reel complete, 10".....	1.50	V	Handle Brace Bolt.....	.10
	Reel complete, 12".....	1.75	X	Cutter Bar Bolt.....	.05
	Reel complete, 14".....	2.00	Y	Roller Hanger Bolt.....	.05
				Pinion Cap Bolt.....	.05

Price List of Repairs for "New Norka" Lawn Mower

	NAME	Price Each		NAME	Price Each
P 150	Wheel	\$0.75		Reel complete, 18".....	\$2.25
P 151	Casing, R. ....	.75		Reel Shaft .....	.30
P 152	Casing, L. ....	.75		Tie Rod .....	.40
P 153	Pinion Cap, L.....	.10		Handle Braces, per pair..	.45
P 154	Pinion Cap, R.....	.10		Roller .....	.25
P 165	Ratchet Pinion, R.....	.10		Handle .....	.50
P 166	Ratchet Pinion, L.....	.10	D	Gudgeon for Roller.....	.10
P 87	Roller Hanger .....	.10	E	Handle Clip .....	.10
P 157	Wheel Washer .....	.05	F	Pawl .....	.05
P 89	Bushing .....	.15	G	Spring Cotter .....	.05
P 158	Cutter Bar complete, 12".	.60	H	Tie Rod Set Screw $\frac{3}{8} \times \frac{5}{8}$ "	.05
P 159	Cutter Bar complete, 14".	.70	J	Cutter Bar Adjusting	
P 160	Cutter Bar complete, 16".	.80		Screw .....	.05
P 161	Cutter Bar complete, 18".	.90	K	Set Screw for Spider....	.05
P 163	Center Spider .....	.10	L	Set Screw and Lock Nut	
P 164	End Spider .....	.15		for adjusting Reel	
P 52	Wrench .....	.10	T	Bearings .....	.10
P 185	Lower Cap for Handle.. .10		U	Joint Bolt for Handle...	.10
	Reel complete, 12".....	1.50	V	Handle Brace Bolt.....	.10
	Reel complete, 14".....	1.75	X	Cutter Bar Bolt.....	.05
	Reel complete, 16".....	2.00	Y	Roller Hanger Bolt.....	.05
				Pinion Cap Bolt.....	.05

In ordering extra parts give the name of the machine, length of the cutter bar and the number that is on the part wanted.

Price List of Repairs for "New Norka" Ball Bearing Lawn Mower

NAME	Price Each		NAME	Price Each
P 150 Wheel	\$0.75		Reel Shaft	\$0.30
P 151½ Casing, R. ....	.75		Tie Rod .....	.40
P 152½ Casing, L. ....	.75		Handle Braces, per pair.	.45
P 153 Pinion Cover, L. ....	.10		Roller .....	.25
P 154 Pinion Cover, R. ....	.10		Handle .....	.50
P 165 Ratchet Pinion, R. ....	.10	A	Ball Retainer only. ....	.25
P 166 Ratchet Pinion, L. ....	.10		Steel Balls, 5-16", per set	
P 164 End Spider .....	.15		of 16 .....	.35
P 163 Center Spider .....	.10	B	Cup for Ball Bearing. ....	.35
P 87 Roller Hanger .....	.10	D	Gudgeon for Roller. ....	.10
P 157 Wheel Washer .....	.05	E	Handle Clip .....	.10
P 52 Wrench .....	.10	F	Pawl .....	.05
P 158 Cutter Bar complete, 12".	.60	G	Spring Cotter .....	.05
P 159 Cutter Bar complete, 14".	.70	H	Tie Rod Set Screw ¾x½"	.05
P 160 Cutter Bar complete, 16".	.80	J	Cutter Bar Adjusting	
P 161 Cutter Bar complete, 18".	.90		Screw .....	.05
P 179 Cone .....	.20	K	Set Screw for Spider and	
P 184 Collar to adjust Cone. ....	.10		adjusting collar. ....	.05
P 185 Lower Cap for Handle. ....	.10	T	Joint Bolt for Handle. ....	.10
Reel complete, 12".	1.50	U	Handle Brace Bolt. ....	.10
Reel complete, 14".	1.75	V	Cutter Bar Bolt. ....	.05
Reel complete, 16".	2.00	X	Roller Hanger Bolt. ....	.05
Reel complete, 18".	2.25	Y	Pinion Cap Bolt. ....	.05

Price List of Repairs for "Calumet" Lawn Mower

NAME	Price Each		NAME	Price Each
P 195 Wheel	\$0.75		Reel Shaft	\$0.30
P 206 Casing, R. ....	.75		Tie Rod .....	.40
P 207 Casing, L. ....	.75		Handle Braces, per pair.	.45
P 165 Ratchet Pinion, R. ....	.10		Roller .....	.25
P 166 Ratchet Pinion, L. ....	.10		Handle .....	.50
P 87 Roller Hanger .....	.10	D	Gudgeon for Roller. ....	.10
P 88 Wheel Washer .....	.05	E	Handle Clip .....	.10
P 89 Bushing .....	.15	F	Pawl .....	.05
P 158 Cutter Bar complete, 12".	.60	I	Tie Rod Set Screw ¾x½"	.05
P 159 Cutter Bar complete, 14".	.70	J	Cutter Bar Adjusting	
P 160 Cutter Bar complete, 16".	.80		Screw .....	.05
P 161 Cutter Bar complete, 18".	.90	K	Set Screw for Spider. ....	.05
P 163 Center Spider .....	.10	L	Set Screw and Lock Nut	
P 164 End Spider .....	.15		for adjusting Reel	
P 52 Wrench .....	.10		Bearings .....	.10
P 185 Lower Cap for Handle. ....	.10	T	Joint Bolt for Handle. ....	.10
Reel complete, 12".	1.50	U	Handle Brace Bolt. ....	.10
Reel complete, 14".	1.75	V	Cutter Bar Bolt. ....	.05
Reel complete, 16".	2.00	X	Roller Hanger Bolt. ....	.05
Reel complete, 18".	2.25	A2	Wheel Bolt .....	.05

In ordering extra parts give the name of the machine, length of the cutter bar and the number that is on the part wanted.

Assorted Spring Cotters



For the convenience of the trade, we pack Spring Cotters in several special Assortments, as shown below.

Assortments Nos. 1, 2 and 3 are especially adapted for Agricultural Trade and No. 4 for the Automobile Trade.

Assortment No. 1

Contains 100 Cotters assorted as follows:

10 $\frac{3}{32} \times \frac{3}{4}$	10 $\frac{3}{16} \times 1\frac{1}{2}$
10 $\frac{3}{32} \times 1$	10 $\frac{1}{4} \times 1\frac{3}{4}$
10 $\frac{1}{8} \times 1$	10 $\frac{1}{4} \times 2$
10 $\frac{1}{8} \times 1\frac{1}{4}$	10 $\frac{5}{16} \times 2$
10 $\frac{3}{16} \times 1\frac{1}{4}$	10 $\frac{1}{16} \times 2\frac{1}{2}$

Packed in a neat paste-board box, twelve boxes in a carton.

Price per box (100 Cotters).....\$4 00

Price per carton (12 boxes).....52 00

Assortment No. 2

Contains 50 Cotters, assorted as follows:

5 $\frac{3}{32} \times \frac{3}{4}$	5 $\frac{3}{16} \times 1\frac{1}{2}$
5 $\frac{3}{32} \times 1$	5 $\frac{1}{4} \times 1\frac{3}{4}$
5 $\frac{1}{8} \times 1$	5 $\frac{1}{4} \times 2$
5 $\frac{1}{8} \times 1\frac{1}{4}$	5 $\frac{5}{16} \times 2$
5 $\frac{3}{16} \times 1\frac{1}{4}$	5 $\frac{1}{16} \times 2\frac{1}{2}$

Packed in a neat paste-board box, twelve boxes in a carton.

Price per carton (12 boxes).....\$26 00

Assortment No. 3

Contains 25 Cotters, assorted as follows

3 $\frac{3}{32} \times \frac{3}{4}$	2 $\frac{3}{16} \times 1\frac{1}{2}$
3 $\frac{3}{32} \times 1$	2 $\frac{1}{4} \times 1\frac{3}{4}$
3 $\frac{1}{8} \times 1$	2 $\frac{1}{4} \times 2$
3 $\frac{1}{8} \times 1\frac{1}{4}$	2 $\frac{5}{16} \times 2$
3 $\frac{3}{16} \times 1\frac{1}{4}$	2 $\frac{1}{16} \times 2\frac{1}{2}$

Packed in a neat paste-board box, twelve boxes in a carton.

Price per carton (12 boxes).....\$15 00

Assortment No. 4

Contains 100 Cotters, assorted as follows:

15 $\frac{1}{16} \times 1\frac{1}{4}$	20 $\frac{1}{8} \times 1\frac{1}{4}$
15 $\frac{3}{32} \times \frac{1}{2}$	5 $\frac{1}{8} \times 2$
15 $\frac{3}{32} \times 1\frac{1}{2}$	15 $\frac{3}{32} \times 1$
5 $\frac{1}{8} \times \frac{1}{2}$	5 $\frac{3}{16} \times 1\frac{1}{2}$
5 $\frac{1}{8} \times 1$	

Packed in a neat tin box, twelve boxes in a carton.

Price per box (100 Cotters).....\$2 00

Spring Cotters



All Measurements Made Under the Eye.

List in effect January 1st, 1906. Superseding all previous lists.

Price Per Thousand.

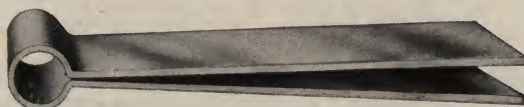
Length, Inches.	Wire Gauge.								
	13	12	11	10	9	8	7	6	5
	Diameter, Inches.								
	$\frac{3}{32}$	$\frac{7}{64}$	$\frac{1}{8}$	$\frac{9}{64}$	$\frac{5}{32}$	$\frac{11}{64}$	$\frac{3}{16}$	$\frac{13}{64}$	$\frac{7}{32}$
$\frac{1}{2}$	\$3 50	\$4 00	\$5 00	\$6 00	\$7 00	\$8 00	.....	.....	.....
$\frac{3}{4}$	4 15	4 75	5 85	7 00	8 15	9 30	\$11 10	\$12 00	.....
1	4 80	5 50	6 70	8 00	9 30	10 60	12 80	14 00	\$18 00
$1\frac{1}{4}$	5 45	6 25	7 55	9 00	10 45	11 90	14 50	16 00	20 80
$1\frac{1}{2}$	6 10	7 00	8 40	10 00	11 60	13 20	16 20	18 00	23 60
$1\frac{3}{4}$	6 75	7 75	9 25	11 00	12 75	14 50	17 90	20 00	26 40
2	7 40	8 50	10 10	12 00	13 90	15 80	19 60	22 00	29 20
$2\frac{1}{4}$	.....	.....	10 95	13 00	15 05	17 10	21 30	24 00	32 00
$2\frac{1}{2}$	.....	.....	11 80	14 00	16 20	18 40	23 00	26 00	34 80
$2\frac{3}{4}$	.....	.....	.....	.....	.....	.....	24 70	28 00	37 60
3	.....	.....	.....	.....	.....	.....	26 40	30 00	40 40

Length, Inches.	Wire Gauge.					
	4	1				
	Diameter, Inches.					
	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$
1	\$20 00	\$32 50	.....	.....	.....	.....
$1\frac{1}{4}$	23 50	37 50	.....	.....	.....	.....
$1\frac{1}{2}$	27 00	42 50	\$72 00	.....	.....	.....
$1\frac{3}{4}$	30 50	47 50	79 20	\$108 00	.....	.....
2	34 00	52 50	86 40	119 50	\$148 50	.....
$2\frac{1}{4}$	37 50	57 50	93 60	131 00	163 50	.....
$2\frac{1}{2}$	41 00	62 50	100 80	142 50	178 50	.....
$2\frac{3}{4}$	44 50	67 50	108 00	154 00	193 50	.....
3	48 00	72 50	115 20	165 50	208 50	\$384 00
$3\frac{1}{4}$	51 50	77 50	122 40	177 00	223 50	404 00
$3\frac{1}{2}$	55 00	82 50	129 60	188 50	238 50	424 00
$3\frac{3}{4}$	58 50	87 50	136 80	200 00	253 50	444 00
4	62 00	92 50	144 00	211 50	268 50	464 00
5	.....	.....	.....	257 50	328 50	544 00
6	.....	.....	.....	.....	388 50	644 00

List subject to discount.

For Assorted Spring Cotters see page 200.

Flat Spring Keys



List in effect January 1st, 1906. Superseding all previous lists.

Price Per Thousand

Length, Inches.	Width in Inches.			
	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$
1 $\frac{1}{4}$	\$39 00	\$52 00	.....	.....
1 $\frac{1}{2}$	44 50	58 00	.....	.....
1 $\frac{3}{4}$	50 00	64 00	\$78 00	.....
2	55 50	70 00	84 50	\$104 00
2 $\frac{1}{4}$	61 00	76 00	91 00	111 00
2 $\frac{1}{2}$	66 50	82 00	97 50	118 00
2 $\frac{3}{4}$	72 00	88 00	104 00	125 00
3	77 50	94 00	110 50	132 00
3 $\frac{1}{4}$	.....	.....	117 00	139 00
3 $\frac{1}{2}$	.....	.....	123 50	146 00

List subject to discount.

Round Spring Keys



No. 000.....	per 100,	\$0 50	No. 1 $\frac{1}{2}$	per 100,	\$0 68
No. 00.....	" "	55	No. 2.....	" "	70
No. 0.....	" "	60	No. 3.....	" "	75
No. 1.....	" "	65	No. 4.....	" "	80

"Hercules" All Steel Screw Drivers



Length of Blade Inches	1 $\frac{1}{2}$	2	3	4	5	6	7	8	10	12
Price.....Dozen	3 00	3 00	3 00	3 00	3 50	4 00	5 00	5 50	8 50	9 50

Made with Japanned handles and polished points.

Cellar Box Cotters

List in effect January 1st, 1906. Superseding all previous lists.

Price Per Thousand

Length, Inches.	Diameter, Inches.					
	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{3}{4}$
3						\$ 900 00
4						1068 00
5						1236 00
6						1404 00
7	\$412 03	\$628 00	\$796 00	\$852 00	\$960 00	1572 00
8	454 00	689 00	887 00	948 07	1080 00	1740 00
9	496 00	750 00	958 00	1044 00	1200 00	1908 00
10	538 00	811 00	1039 00	1140 00	1320 00	2076 00
11	580 00	872 00	1120 00	1236 00	1440 00	2244 00
12	622 00	933 00	1201 00	1332 00	1560 00	2412 00
13	664 00	994 00	1282 00	1428 00	1680 00	2580 00
14	706 00	1055 00	1363 00	1524 00	1800 00	2748 00
15	748 00	1116 00	1444 00	1620 00	1920 00	2916 00
16	790 00	1177 00	1525 00	1716 00	2040 00	3084 00
17	832 00	1238 00	1606 00	1812 00	2160 00	3252 00
18	876 00	1299 00	1687 00	1908 00	2280 00	3420 00

List subject to discount.



Flat Riveted Keys

Over Sixty Different Sizes and Patterns

Special Catalogue and Prices on Application

Screw Driver Bits

Stubbs' Steel Hand Forged



Plain, assorted, per dozen..... \$2 00

Cold Chisels



Our chisels are made of octagon tool steel, selected for the purpose.

Diameter, Inches.	Length, Inches.	Average Weight Per Dozen, Pounds.	Price, Per Dozen.	
			Machinists'	Agricultural
$\frac{3}{8}$	$5\frac{1}{2}$	$2\frac{1}{4}$	\$3 00	.....
$\frac{7}{16}$	$5\frac{3}{4}$	$3\frac{1}{4}$	3 50	.....
$\frac{1}{2}$	6	4	4 00	\$3 00
$\frac{9}{16}$	6	$5\frac{1}{2}$	4 50	3 50
$\frac{5}{8}$	$6\frac{1}{2}$	7	5 00	4 00
$\frac{3}{4}$	8	11	7 50	.....
$\frac{7}{8}$	8	15	9 00	.....
1	8	20	11 50	.....

Packed $\frac{3}{8}$ -inch to $\frac{5}{8}$ -inch, 1 dozen to box; $\frac{3}{4}$ -inch to 1-inch, $\frac{1}{2}$ -dozen to box.

Hand Punches



Our punches are made of octagon tool steel, selected for the purpose.

Diameter, Inches.	Length, Inches.	Points.	Size, Inches.	Average Weight Per Dozen, Pounds.	Price, Per Dozen.	
					Machinists'	Agricultural
$\frac{1}{2}$	6	00	$\frac{5}{16}$	$3\frac{1}{2}$	\$4 00	\$3 00
$\frac{1}{2}$	6	0	$\frac{3}{8}$	$3\frac{1}{2}$	4 00	3 00
$\frac{1}{2}$	6	1	$\frac{1}{4}$	$3\frac{1}{2}$	4 00	3 00
$\frac{1}{2}$	6	2	$\frac{3}{8}$	$3\frac{1}{2}$	4 00	3 00
$\frac{1}{2}$	6	3	$\frac{1}{2}$	$3\frac{1}{2}$	4 00	3 00
$\frac{1}{2}$	6	4	$\frac{5}{8}$	$3\frac{1}{2}$	4 00	3 00
$\frac{1}{2}$	6	5	$\frac{3}{4}$	$3\frac{1}{2}$	4 00	3 00
$\frac{1}{2}$	6	6	$\frac{7}{8}$	$3\frac{1}{2}$	4 00	3 00
$\frac{1}{2}$	9	2	$\frac{1}{2}$	5	5 50	4 50
$\frac{1}{2}$	9	3	$\frac{3}{4}$	5	5 50	4 50
$\frac{1}{2}$	9	4	$\frac{1}{2}$	5	5 50	4 50
$\frac{3}{8}$	$6\frac{1}{2}$	2	$\frac{3}{8}$	$6\frac{3}{4}$	5 00	4 00
$\frac{5}{8}$	$6\frac{1}{2}$	3	$\frac{1}{2}$	$6\frac{3}{4}$	5 00	4 00
$\frac{5}{8}$	$6\frac{1}{2}$	4	$\frac{3}{4}$	$6\frac{3}{4}$	5 00	4 00
$\frac{5}{8}$	9	2	$\frac{1}{2}$	$7\frac{1}{2}$	8 50	7 50
$\frac{5}{8}$	9	3	$\frac{3}{4}$	$7\frac{1}{2}$	8 50	7 50
$\frac{5}{8}$	9	4	$\frac{1}{2}$	$7\frac{1}{2}$	8 50	7 50

Packed 1 dozen to box. Lengths, diameters and points not listed above are special and subject to special prices.

The "W. & B." Rubber Pad Horse Shoe



The "W & B" Rubber Pad Shoe is made with a frame of drop forged steel, containing a channel at top and bottom, into which is firmly vulcanized a high grade of rubber, terminating at the heels in heavy rubber pads.

This shoe prevents slipping on wet or icy pavements, cannot catch in railroad crossings or car tracks, relieves tender feet, gives frog pressure and prevents corns. It also expands contracted heels, lessens concussion and does not heat the hoof. It is fitted to the hoof without heating, as the frame is of drop forged steel and can be shaped cold on the anvil to fit the hoof. This entirely prevents burning the hoof and also saves time in putting on the shoe.

Price Per Set of (4) Four List in Effect November 1, 1904

Size	1	2	2½	3	3½	4	4½	5	6
Medium.....	\$3.70	\$4.00	.....	\$4.60	\$4.90	\$5.20	.....	.....	.....
Heavy.....	.....	4.00	\$4.30	4.60	4.90	5.20	\$5.50	\$6.00	\$6.50
Heavy hind.....	3.70	4.00	4.30	4.60	4.90	5.20	5.50	.....	.....

Discount to the Trade

Medium Shoe is adapted for driving horses.

Heavy Shoe is adapted for horses used on Fire Departments, Patrol Wagons, Ambulances, Express Wagons, Cabs and Coaches.

To order: Send size of shoes wanted, or a pencil diagram showing size of hoof.

Any horseshoer can obtain the "W & B" RUBBER HORSE SHOES and put them on at reasonable prices. For the accommodation of shoers a stock is carried by leading wholesale supply dealers. We invite correspondence from shoers or horse owners who have any difficulty in obtaining the shoes.

Decimal Equivalents of Twist Drills

Drill.	Diam. Inches.	Drill.	Diam. Inches.	Drill.	Diam. Inches.	Drill.	Diam. Inches.
80	.0135	43	.0890	13	.1850	M	.2950
79	.0145	2.3mm	.0905	4.7mm	.1850	7.5mm	.2953
78	.0156	42	.0935	4.8mm	.1875	7.6mm	.2968
77	.0160	41	.0937	12	.1890	N	.2992
.5mm	.0180	2.4mm	.0945	11	.1890	7.7mm	.3020
76	.0197	40	.0960	4.9mm	.1910	7.8mm	.3031
75	.0200	2.5mm	.0980	10	.1929	7.9mm	.3071
74	.0210	39	.0984	9	.1935	8.0mm	.3110
.6mm	.0225	38	.0995	5.1mm	.1960	O	.3125
73	.0236	37	.1015	8	.1968	8.1mm	.3150
72	.0240	2.6mm	.1024	5.2mm	.1990	8.2mm	.3160
71	.0250	36	.1040	7	.2008	8.3mm	.3189
.7mm	.0260	35	.1063	6	.2010	P	.3228
70	.0276	34	.1065	5.3mm	.2031	8.4mm	.3230
69	.0280	33	.1093	4	.2040	8.5mm	.3268
68	.0292	32	.1100	5.4mm	.2047	8.6mm	.3281
.8mm	.0310	2.8mm	.1102	3	.2055	8.7mm	.3307
67	.0312	31	.1110	5.5mm	.2087	8.8mm	.3320
66	.0315	30	.1130	2	.2090	8.9mm	.3346
65	.0320	2.9mm	.1142	5.6mm	.2126	9.0mm	.3386
.9mm	.0330	29	.1160	3	.2130	R	.3390
64	.0350	28	.1181	5.7mm	.2165	9.1mm	.3425
63	.0354	27	.1200	5.8mm	.2187	9.2mm	.3437
62	.0360	26	.1220	6.0mm	.2205	9.3mm	.3465
61	.0370	25	.1250	6.1mm	.2210	S	.3480
60	.0380	24	.1260	6.2mm	.2244	9.4mm	.3504
.1mm	.0390	23	.1285	6.3mm	.2280	9.5mm	.3543
59	.0394	22	.1299	6.4mm	.2283	T	.3580
58	.0400	21	.1339	6.5mm	.2323	9.6mm	.3583
57	.0410	20	.1360	6.6mm	.2340	9.7mm	.3594
56	.0420	19	.1378	6.7mm	.2344	9.8mm	.3622
55	.0430	18	.1405	6.8mm	.2362	9.9mm	.3661
54	.0433	17	.1406	6.9mm	.2380	10.0mm	.3680
53	.0465	16	.1417	7.0mm	.2401	10.1mm	.3701
52	.0468	15	.1440	7.1mm	.2420	10.2mm	.3740
51	.0472	14	.1457	7.2mm	.2441	10.3mm	.3750
50	.0512	13	.1470	7.3mm	.2460	10.4mm	.3770
49	.0520	12	.1495	7.4mm	.2480	10.5mm	.3780
48	.0550	11	.1496	7.5mm	.2500	10.6mm	.3819
47	.0551	10	.1520	7.6mm	.2500	10.7mm	.3858
46	.0591	9	.1535	7.7mm	.2520	10.8mm	.3860
45	.0595	8	.1540	7.8mm	.2559	10.9mm	.3898
44	.0625	7	.1562	7.9mm	.2570	11.0mm	.3906
43	.0629	6	.1570	8.0mm	.2598	11.1mm	.3937
42	.0635	5	.1575	8.1mm	.2610	11.2mm	.3970
41	.0669	4	.1590	8.2mm	.2638	11.3mm	.4040
40	.0670	3	.1610	8.3mm	.2656	11.4mm	.4062
39	.0700	2	.1614	8.4mm	.2660	11.5mm	.4130
38	.0709	1	.1654	8.5mm	.2677	11.6mm	.4134
37	.0730	1/8	.1660	8.6mm	.2716	11.7mm	.4219
36	.0748	1/4	.1693	8.7mm	.2720	11.8mm	.4330
35	.0760	3/8	.1695	8.8mm	.2756	11.9mm	.4375
34	.0781	1/2	.1719	8.9mm	.2770	12.0mm	.4528
33	.0785	5/8	.1730	9.0mm	.2795	12.1mm	.4531
32	.0787	3/4	.1732	9.1mm	.2811	12.2mm	.4687
31	.0810	7/8	.1770	9.2mm	.2812	12.3mm	.4724
30	.0820	1	.1771	9.3mm	.2835	12.4mm	.4843
29	.0827	1 1/8	.1800	9.4mm	.2874	12.5mm	.4921
28	.0860	1 1/4	.1811	9.5mm	.2900	12.6mm	.5000
27	.0866	1 1/2	.1820	9.6mm	.2913	12.7mm	.5118

Continued on next page.

Decimal Equivalents of Twist Drills

Continued.

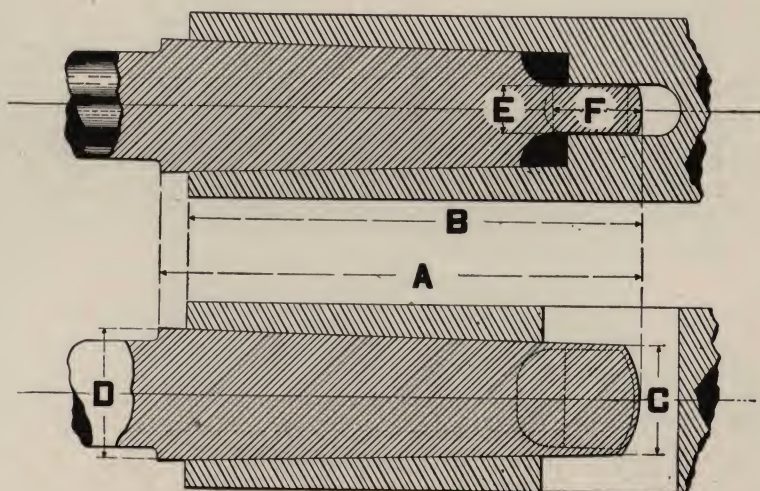
Drill.	Diam. Inches.	Drill.	Diam. Inches.	Drill.	Diam. Inches.	Drill.	Diam. Inches.
$\frac{3}{32}$	.5156	26.5mm	1.0433	$1\frac{1}{16}$	1.5625	$2\frac{7}{16}$	2.1094
$\frac{1}{8}$	.5312	$1\frac{1}{8}$	1.0469	40mm	1.5748	$2\frac{1}{8}$	2.1250
13.5mm	.5315	$1\frac{1}{16}$	1.0625	$1\frac{1}{8}$	1.5781	54mm	2.1260
$\frac{11}{32}$	.5469	27mm	1.0630	$1\frac{1}{4}$	1.5937	$2\frac{3}{8}$	2.1406
14mm	.5512	$1\frac{1}{8}$	1.0781	40.5mm	1.5945	$2\frac{1}{2}$	2.1562
$\frac{9}{16}$	.5625	27.5mm	1.0827	$1\frac{1}{4}$	1.6094	55mm	2.1654
14.5mm	.5709	$1\frac{1}{8}$	1.0937	41mm	1.6142	$2\frac{1}{4}$	2.1719
$\frac{7}{8}$	.5781	28mm	1.1024	$1\frac{1}{2}$	1.6250	$2\frac{3}{4}$	2.1875
15mm	.5906	$1\frac{1}{4}$	1.1094	41.5mm	1.6339	$2\frac{1}{2}$	2.2031
$\frac{13}{16}$	.5937	28.5mm	1.1220	$1\frac{1}{2}$	1.6406	$2\frac{1}{2}$	2.2187
$\frac{11}{8}$	.6094	$1\frac{1}{2}$	1.1250	42mm	1.6536	$2\frac{1}{4}$	2.2344
15.5mm	.6102	$1\frac{1}{8}$	1.1406	$1\frac{1}{2}$	1.6562	$2\frac{1}{4}$	2.2500
$\frac{5}{8}$	.6250	29mm	1.1417	$1\frac{1}{2}$	1.6719	$2\frac{1}{4}$	2.2656
$\frac{11}{16}$	.6299	$1\frac{1}{8}$	1.1562	42.5mm	1.6732	$2\frac{1}{4}$	2.2812
$\frac{3}{4}$	.6406	29.5mm	1.1614	$1\frac{1}{2}$	1.6875	$2\frac{1}{4}$	2.2969
16.5mm	.6496	$1\frac{1}{4}$	1.1719	43mm	1.6929	$2\frac{1}{4}$	2.3125
$\frac{13}{16}$	.6562	30mm	1.1811	$1\frac{1}{2}$	1.7031	$2\frac{1}{4}$	2.3281
17mm	.6693	$1\frac{1}{8}$	1.1875	43.5mm	1.7126	$2\frac{1}{4}$	2.3437
$\frac{11}{8}$	.6719	30.5mm	1.2008	$1\frac{1}{2}$	1.7187	$2\frac{1}{4}$	2.3594
$\frac{1}{2}$	.6875	$1\frac{1}{4}$	1.2031	44mm	1.7323	$2\frac{1}{4}$	2.3750
17.5mm	.6890	$1\frac{1}{8}$	1.2187	$1\frac{1}{2}$	1.7344	$2\frac{1}{4}$	2.3906
$\frac{9}{16}$	.7031	31mm	1.2205	$1\frac{1}{2}$	1.7500	$2\frac{1}{4}$	2.4062
18mm	.7087	$1\frac{1}{4}$	1.2344	44.5mm	1.7520	$2\frac{1}{4}$	2.4219
$\frac{7}{8}$	.7187	31.5mm	1.2402	$1\frac{1}{2}$	1.7656	$2\frac{1}{4}$	2.4375
18.5mm	.7283	$1\frac{1}{4}$	1.2500	45mm	1.7717	$2\frac{1}{4}$	2.4531
$\frac{11}{16}$	.7344	32mm	1.2599	$1\frac{1}{2}$	1.7812	$2\frac{1}{4}$	2.4687
19mm	.7480	$1\frac{1}{4}$	1.2656	45.5mm	1.7914	$2\frac{1}{4}$	2.4844
$\frac{3}{4}$	.7500	32.5mm	1.2795	$1\frac{1}{2}$	1.7969	$2\frac{1}{4}$	2.5000
$\frac{13}{16}$	.7656	$1\frac{1}{8}$	1.2812	46mm	1.8110	$2\frac{1}{4}$	2.5156
19.5mm	.7677	$1\frac{1}{8}$	1.2969	$1\frac{1}{2}$	1.8125	$2\frac{1}{4}$	2.5312
$\frac{11}{8}$	.7812	33mm	1.2992	$1\frac{1}{2}$	1.8281	$2\frac{1}{4}$	2.5469
20mm	.7874	$1\frac{1}{8}$	1.3125	46.5mm	1.8307	$2\frac{1}{4}$	2.5625
$\frac{9}{16}$	.7969	33.5mm	1.3189	$1\frac{1}{2}$	1.8437	$2\frac{1}{4}$	2.5781
20.5mm	.8071	$1\frac{1}{4}$	1.3281	47mm	1.8504	$2\frac{1}{4}$	2.5937
$\frac{7}{8}$	.8125	34mm	1.3386	$1\frac{1}{2}$	1.8594	$2\frac{1}{4}$	2.6093
$\frac{13}{16}$	.8268	$1\frac{1}{8}$	1.3437	47.5mm	1.8701	$2\frac{1}{4}$	2.6250
$\frac{11}{16}$	.8281	34.5mm	1.3583	$1\frac{1}{2}$	1.8750	$2\frac{1}{4}$	2.6406
$\frac{1}{2}$	.8437	$1\frac{1}{4}$	1.3594	48mm	1.8898	$2\frac{1}{4}$	2.6562
21.5mm	.8465	$1\frac{1}{8}$	1.3750	$1\frac{1}{2}$	1.8906	$2\frac{1}{4}$	2.6719
$\frac{9}{16}$	.8594	35mm	1.3780	$1\frac{1}{2}$	1.9062	$2\frac{1}{4}$	2.6875
22mm	.8661	$1\frac{1}{4}$	1.3906	48.5mm	1.9095	$2\frac{1}{4}$	2.7031
$\frac{7}{8}$	.8750	35.5mm	1.3977	$1\frac{1}{2}$	1.9219	$2\frac{1}{4}$	2.7187
22.5mm	.8858	$1\frac{1}{8}$	1.4062	49mm	1.9291	$2\frac{1}{4}$	2.7344
$\frac{11}{16}$	.8906	36mm	1.4173	$1\frac{1}{2}$	1.9375	$2\frac{1}{4}$	2.7500
23mm	.9055	$1\frac{1}{4}$	1.4219	49.5mm	1.9488	$2\frac{1}{4}$	2.7656
$\frac{23}{32}$	.9062	36.5mm	1.4370	$1\frac{1}{2}$	1.9531	$2\frac{1}{4}$	2.7812
$\frac{9}{16}$	.9219	$1\frac{1}{8}$	1.4375	50mm	1.9685	$2\frac{1}{4}$	2.7969
23.5mm	.9252	$1\frac{1}{4}$	1.4531	$1\frac{1}{2}$	1.9687	$2\frac{1}{4}$	2.8125
$\frac{11}{8}$	.9375	37mm	1.4567	$1\frac{1}{2}$	1.9844	$2\frac{1}{4}$	2.8281
24mm	.9449	$1\frac{1}{8}$	1.4687	50.5mm	1.9882	$2\frac{1}{4}$	2.8437
$\frac{3}{4}$	.9531	37.5mm	1.4764	2.	2.0000	$2\frac{1}{4}$	2.8594
24.5mm	.9646	$1\frac{1}{4}$	1.4844	51mm	2.0079	$2\frac{1}{4}$	2.8750
$\frac{13}{16}$	.9687	38mm	1.4961	$2\frac{1}{8}$	2.0156	$2\frac{1}{4}$	2.8906
25mm	.9843	$1\frac{1}{2}$	1.5000	$2\frac{1}{8}$	2.0312	$2\frac{1}{4}$	2.9062
$\frac{11}{8}$	.9844	$1\frac{1}{4}$	1.5156	$2\frac{1}{8}$	2.0469	$2\frac{1}{4}$	2.9219
1	1.0000	38.5mm	1.5158	52mm	2.0473	$2\frac{1}{4}$	2.9375
25.5mm	1.0040	$1\frac{1}{2}$	1.5312	$2\frac{1}{8}$	2.0625	$2\frac{1}{4}$	2.9531
$1\frac{1}{16}$	1.0156	39mm	1.5354	$2\frac{1}{8}$	2.0781	$2\frac{1}{4}$	2.9687
26mm	1.0236	$1\frac{1}{4}$	1.5469	53mm	2.0867	$2\frac{1}{4}$	2.9844
$1\frac{1}{8}$	1.0312	39.5mm	1.5551	$2\frac{1}{8}$	2.0937	3	3.0000

Speed of Twist Drills

The following table shows the approximate number of revolutions per minute which drills should be driven in average material and by modern machine tools.

Size of Drill, Inches.	Soft Steel.	Cast Iron.	Brass.
$\frac{1}{16}$	1760	2160	3328
$\frac{1}{8}$	879	1079	1663
$\frac{3}{16}$	586	719	1108
$\frac{1}{4}$	438	538	830
$\frac{5}{16}$	350	430	663
$\frac{3}{8}$	290	357	552
$\frac{7}{16}$	248	306	472
$\frac{1}{2}$	216	266	412
$\frac{9}{16}$	192	236	365
$\frac{5}{8}$	172	212	329
$\frac{11}{16}$	155	191	298
$\frac{3}{4}$	142	175	272
$\frac{13}{16}$	129	160	250
$\frac{7}{8}$	120	148	232
$\frac{15}{16}$	110	137	215
1	103	128	201
$1\frac{1}{8}$	90	112	177
$1\frac{1}{4}$	79	99	157
$1\frac{3}{8}$	70	88	141
$1\frac{1}{2}$	62	79	128
$1\frac{5}{8}$	57	72	117
$1\frac{3}{4}$	51	65	107
$1\frac{7}{8}$	46	59	98
2	41	53	90
$2\frac{1}{8}$	37	48	83
$2\frac{1}{4}$	33	44	76
$2\frac{3}{8}$	30	40	71
$2\frac{1}{2}$	27	36	65
$2\frac{5}{8}$	24	33	61
$2\frac{3}{4}$	21	30	57
$2\frac{7}{8}$	18	27	52
3	16	24	48

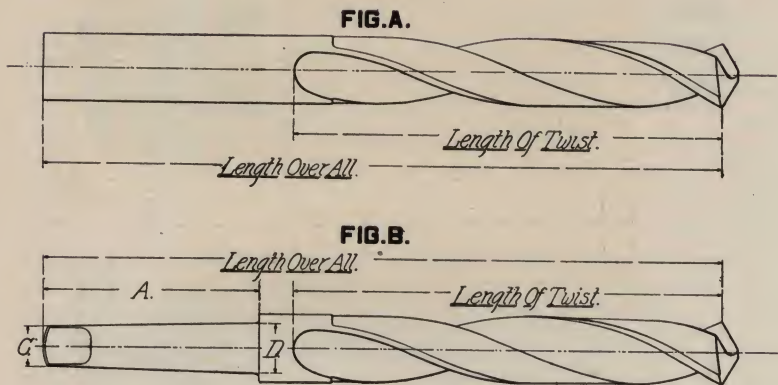
Dimensions of Shanks on Taper Shank Drills



DIMENSIONS.

No.	A	B	C	D	E	F	TAPER PER		DRIFT No.
							FT.	IN.	
0	$2\frac{3}{8}$	$2\frac{1}{4}$	.239	.356	$\frac{5}{32}$	$\frac{9}{32}$	.625	.05208	0
1	$2\frac{11}{16}$	$2\frac{7}{16}$	.353	.475	$\frac{13}{64}$	$\frac{3}{8}$	.600	.050	1
2	$3\frac{1}{4}$	3	.550	.700	$\frac{1}{4}$	$\frac{1}{2}$	.602	.05016	2
3	4	$3\frac{3}{4}$	.750	.938	$\frac{5}{16}$	$\frac{11}{16}$	.602	.05016	3
4	$5\frac{1}{8}$	$4\frac{3}{4}$	.984	1.231	$\frac{15}{32}$	$\frac{15}{16}$	.623	.05191	4
5	$6\frac{3}{8}$	6	1.433	1.748	$\frac{5}{8}$	$1\frac{3}{16}$	.630	.0525	5
6	$8\frac{3}{8}$	$8\frac{5}{16}$	2.060	2.494	$\frac{3}{4}$	$1\frac{3}{8}$	.626	.05216	6
7	$11\frac{5}{8}$	$11\frac{1}{4}$	2.684	3.270	$1\frac{1}{8}$	$1\frac{1}{2}$	.625	.05208	7

Suggestions for Ordering Drills



If Shank is standard give number. See page 209.

Regular Drills.—Always order by catalogue number and state diameter.

Special Drills.—Refer to catalogue number for general style of tool required, giving also the following information.

Special Straight Shank Drills.—Give diameter and length over all and length of twist. See Fig. A.

Special Taper Shank Drills.—Give diameter and length over all and length of twist. See Fig. B. If a special taper shank is required give diameter at C and D and length E. If the shank has a tang give thickness and length. If no tang so state on the order.

Drill Cases



Cut Illustrates No. 1 Case

No. 1. (36 inches wide by 45 inches high.)

Will hold Wire Drills Nos. 1 to 80—Jobbers' Drills $\frac{1}{16}$ to $\frac{1}{2}$ by 64ths—Bit Stock Drills $\frac{1}{32}$ to $\frac{1}{2}$ by 32nds—Taper or Straight Shank Drills $\frac{1}{4}$ to $1\frac{1}{4}$ by 32nds. Has two large drawers for Chucks, Sleeves, etc.

No. 2. (36 inches wide by 72 inches high.)

Will hold Wire Drills Nos. 1 to 80. Jobbers' Drills $\frac{1}{16}$ to $\frac{1}{2}$ inch by 64ths—Bit Stock Drills $\frac{1}{32}$ to $\frac{1}{2}$ by 32nds—Straight Shank or Taper Shank Drills $\frac{1}{4}$ to 1 inch by 64ths—Straight Shank or Taper Shank Drills 1 inch to $2\frac{1}{32}$ inch by 32nds. Has two drawers for Chucks, etc.

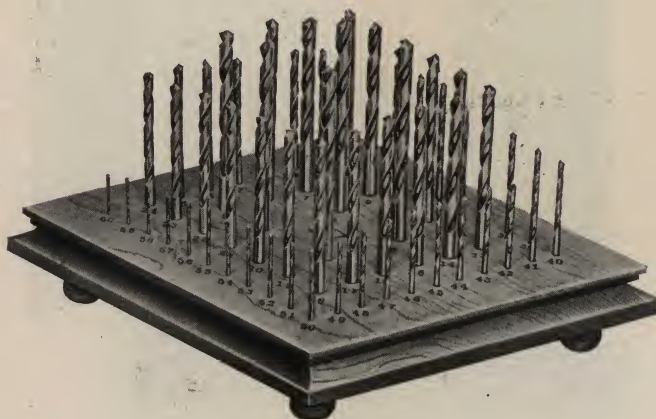
No. 4. (19½ inches wide by 25 inches high.)

Will hold Wire Drills Nos. 1 to 60 inclusive and Jobbers' Drills $\frac{1}{16}$ to $\frac{1}{2}$ by 64ths. Has wooden trays. Two small drawers. One long drawer.

No. 5. (28 inches wide by 25 inches high.)

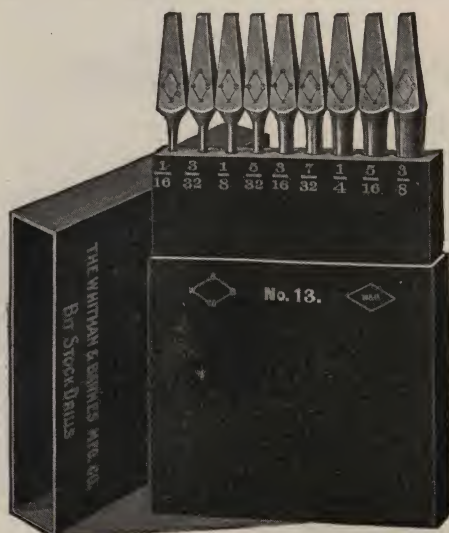
Will hold Wire Drills Nos. 1 to 65—Jobbers' Drills $\frac{1}{16}$ to $\frac{1}{2}$ by 64ths—Straight Shank or Taper Shank Drills $\frac{1}{4}$ to $\frac{1}{2}$ by 64ths—Straight Shank or Taper Shank Drills $\frac{1}{2}$ to 1 inch by 32nds. Has wooden trays and one drawer for Chucks, Sleeves, etc.

“Diamond” Twist Drill Sets



Prices of Drills Per Set

No. 1.	Set of Taper Shank Drills $\frac{1}{4}$ to 1 inch, varying by 16ths.....	\$20.00
No. 2.	Set of Taper Shank Drills $\frac{3}{8}$ to $1\frac{1}{4}$ inch, varying by 16ths.....	34.50
No. 3.	Set of Taper Shank Drills $\frac{3}{8}$ to $\frac{1}{4}$ inch by 32nds, $\frac{1}{4}$ to $1\frac{1}{4}$ inch by 16ths	42.00
No. 4.	Set of Taper Shank Drills $\frac{3}{8}$ to $\frac{3}{4}$ inch by 32nds, $\frac{3}{4}$ to 2 inch by 16ths	131.00
No. 5.	Set Jobbers, Straight Shanks, $\frac{1}{16}$ -to $\frac{1}{2}$ inch by 64ths, mounted.....	10.00
No. 6.	Set Jobbers, Straight Shanks, $\frac{1}{16}$ to $\frac{1}{2}$ inch by 32nds, mounted....	5.40
No. 7.	Set Drills, from 60 to $\frac{3}{8}$ inch, mounted.....	9.90
No. 8.	Set Drills, Steel Wire Gauge, from No. 1 to No. 60, mounted.....	8.10
No. 9.	Half Set Drills, alternate Nos. from 1 to 59, mounted.....	4.30
No. 11.	Set of Taper Shank Drills, $\frac{3}{8}$ to 2 inch by 32nds.....	240.00
No. 12.	Set Machine Bits, $\frac{1}{8}$ inch to $\frac{1}{2}$ inch, mounted, varying by 32nds.....	7.00
	Price of Diamond Wood Block only.....each	.50



"W. & B." Bit Stock Drill Sets

Packed in flat Leatherette cases which fit the pocket and keep the Drills in good condition. Size of each Drill stamped on case in gold.

Set No. 13 Contains One Each

$\frac{1}{16}$	$\frac{3}{32}$	$\frac{1}{8}$	$\frac{5}{32}$	$\frac{3}{16}$
$\frac{7}{32}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	

Price Per Set, \$2.75

Set No. 13A Contains One Each

$\frac{1}{8}$	$\frac{5}{32}$	$\frac{3}{16}$	$\frac{7}{32}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	
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Price Per Set, \$2.65

Set No. 13B Contains One Each

$\frac{1}{8}$	$\frac{5}{32}$	$\frac{3}{16}$	$\frac{7}{32}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$
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Price Per Set, \$4.25

"W. & B." Wood Boring Brace Drill Sets

Packed in flat, black, Leatherette Boxes.

Size of each Drill stamped on case in gold.

Set No. 14 Contains One Each

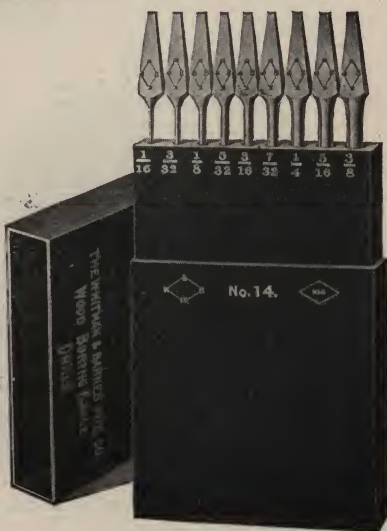
$\frac{1}{16}$	$\frac{3}{32}$	$\frac{1}{8}$	$\frac{5}{32}$	$\frac{3}{16}$
$\frac{7}{32}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	

Price Per Set, \$2.00

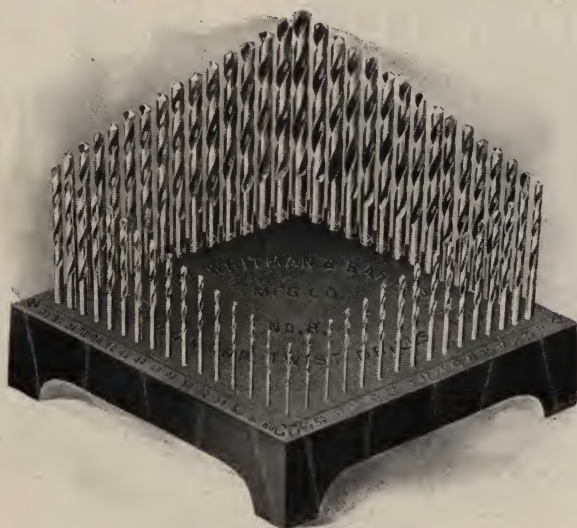
Set No. 14A Contains One Each

$\frac{1}{8}$	$\frac{5}{32}$	$\frac{3}{16}$	$\frac{7}{32}$	
$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$		

Price Per Set, \$1.90



“Diamond” Twist Drill Sets

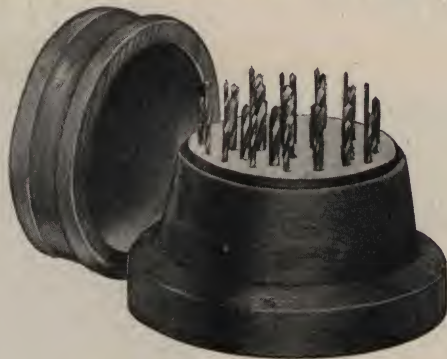


Mounted on handsome Metal Stands, copperized finish. Each Drill fits in a hole in the stand, of corresponding size. On the 5A Stand the 32nd sizes are on one side of the stand and the 64th sizes on the other.

On the 8A Stand the even numbers are on one side and the odd numbers on the other.

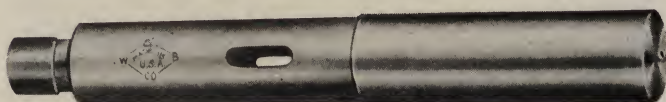
No. 5A. Set contains Jobbers' Drills, 1-16 to $\frac{1}{2}$ inch by 64ths.	
Price, per set	\$11.50
No. 8A. Set contains Wire Drills, Nos. 1 to 60 inclusive.	
Price, per set	9.75
Metal Stands only. Price, each.....	1.00

Jewelers' Set No. 10



Case and Drills No. 30 ($\frac{1}{8}$ inch) to No. 65 Steel Wire Gauge. Each.....	\$4.25
Case only. Each.....	.50

Steel Sockets for Taper Shank Drills



No. 100

Taper Socket

	Entire Length, Inches.	Diam. of Blank End, Inches.	Price Each.
No. 1. Holds $\frac{1}{8}$ to $\frac{9}{16}$ in., incl. . . .	7	$1\frac{1}{8}$	\$1 20
No. 2. Holds $\frac{3}{4}$ to $\frac{3}{2}$ in., incl. . . .	8	$1\frac{1}{4}$	1 80
No. 3. Holds $\frac{3}{4}$ to $1\frac{1}{4}$ in., incl. . . .	10	$1\frac{1}{2}$	2 50
No. 4. Holds $1\frac{1}{4}$ to 2 in., incl. . . .	13	2	4 00
No. 5. Holds $2\frac{1}{4}$ to 3 in., incl. . . .	15	$2\frac{1}{2}$	7 50
No. 6. Holds $3\frac{1}{4}$ to 6 in., incl. . . .	18	3	14 00

Steel Sockets for Taper Shank Drills



No. 100 A

	Price Each.
No. 1. With Shank fitted to No. 2 Socket.	\$ 2 00
No. 1. With Shank fitted to No. 3 Socket.	2 50
No. 2. With Shank fitted to No. 3 Socket.	2 50
No. 2. With Shank fitted to No. 4 Socket.	3 20
No. 3. With Shank fitted to No. 4 Socket.	3 20
No. 3. With Shank fitted to No. 5 Socket.	4 80
No. 4. With Shank fitted to No. 5 Socket.	4 80
No. 5. With Shank fitted to No. 6 Socket.	12 00

Steel Sleeves for Taper Shank Drills



No. 100 B

No. 1.	Fitted to No. 2 Socket	\$1.80
No. 1.	Fitted to No. 3 Socket	2.40
No. 2.	Fitted to No. 3 Socket	2.40
No. 2.	Fitted to No. 4 Socket	3.00
No. 3.	Fitted to No. 4 Socket	3.00
No. 3.	Fitted to No. 5 Socket	4.40
No. 4.	Fitted to No. 5 Socket	4.40
No. 4.	Fitted to No. 6 Socket	10.00
No. 5.	Fitted to No. 6 Socket	10.00

Center Keys or Drifts



No. 100 C

Drop forged from special steel, finished and case-hardened.
Size will fit corresponding numbers of sockets.

	Number					
	1	2	3	4	5	6
Length, inches	6	6 $\frac{1}{4}$	7 $\frac{1}{2}$	8 $\frac{1}{2}$	10	11 $\frac{1}{4}$
Thickness, inches	$\frac{1}{8}$ $\frac{3}{4}$	$\frac{1}{4}$ $\frac{3}{4}$	$\frac{5}{16}$ $\frac{3}{4}$	$\frac{3}{8}$ $\frac{7}{8}$	$\frac{5}{8}$ $\frac{7}{8}$	$\frac{3}{4}$ $\frac{11}{16}$
Width, inches	$\frac{3}{8}$ $\frac{3}{8}$	$\frac{7}{8}$ $\frac{3}{4}$	1 $\frac{1}{8}$ $\frac{3}{4}$	1 $\frac{7}{8}$ $\frac{3}{4}$	1 $\frac{7}{8}$ $\frac{3}{4}$	1 $\frac{11}{16}$ $\frac{3}{4}$
Price, each	\$0.30	\$0.35	\$0.40	\$0.50	\$0.60	\$0.75

Increase Twist Drills

With Taper Shanks



No. 102

Diam. Inches.	Length, Inches.	Price, Each.	Shank, Taper.	Diam. Inches.	Length, Inches.	Price, Each.	Shank, Taper.
$\frac{1}{8}$	$5\frac{1}{8}$	\$0 45	No. 1.	$1\frac{1}{8}$	$11\frac{3}{4}$	\$3 80	No. 3.
$\frac{5}{32}$	$5\frac{3}{8}$	45		$1\frac{5}{32}$	$11\frac{7}{8}$	4 00	
$\frac{7}{16}$	$5\frac{5}{8}$	50		$1\frac{1}{16}$	12	4 20	
$\frac{7}{32}$	$5\frac{7}{8}$	55		$1\frac{3}{32}$	$12\frac{1}{8}$	4 40	
$\frac{1}{4}$	$6\frac{1}{8}$	60		$1\frac{1}{4}$	$12\frac{1}{2}$	4 50	
$\frac{9}{32}$	$6\frac{1}{4}$	65					No. 4.
$\frac{5}{16}$	$6\frac{3}{8}$	70		$1\frac{9}{32}$	$14\frac{1}{8}$	4 65	
$\frac{11}{32}$	$6\frac{1}{2}$	75		$1\frac{1}{16}$	$14\frac{1}{4}$	4 80	
$\frac{3}{8}$	$6\frac{3}{4}$	80		$1\frac{1}{8}$	$14\frac{3}{8}$	5 00	
$\frac{13}{32}$	7	85		$1\frac{3}{8}$	$14\frac{1}{2}$	5 20	
$\frac{7}{16}$	$7\frac{1}{4}$	90		$1\frac{3}{16}$	$14\frac{5}{8}$	5 40	
$\frac{15}{32}$	$7\frac{1}{2}$	95		$1\frac{7}{16}$	$14\frac{3}{4}$	5 60	
$\frac{1}{2}$	$7\frac{3}{4}$	1 00		$1\frac{15}{32}$	$14\frac{7}{8}$	5 80	
$\frac{17}{32}$	8	1 10		$*1\frac{1}{2}$	15	6 00	
$\frac{9}{16}$	$8\frac{1}{4}$	1 20		$1\frac{1}{2}$	$15\frac{1}{8}$	6 30	
				$1\frac{5}{8}$	$15\frac{1}{4}$	6 60	
$\frac{19}{32}$	$8\frac{1}{2}$	1 30	No. 2.	$1\frac{3}{4}$	$15\frac{3}{8}$	6 90	
$\frac{5}{8}$	$8\frac{3}{4}$	1 40		$1\frac{7}{8}$	$15\frac{1}{2}$	7 20	
$\frac{21}{32}$	9	1 50		$1\frac{21}{32}$	$15\frac{5}{8}$	7 50	
$\frac{11}{16}$	$9\frac{1}{4}$	1 60		$1\frac{1}{4}$	$15\frac{3}{4}$	7 80	
$\frac{23}{32}$	$9\frac{1}{2}$	1 70		$1\frac{1}{2}$	$15\frac{7}{8}$	8 10	
$\frac{3}{4}$	$9\frac{3}{4}$	1 85		$1\frac{3}{4}$	16	8 40	
$\frac{25}{32}$	$9\frac{7}{8}$	2 00		$1\frac{25}{32}$	$16\frac{1}{8}$	8 60	
$\frac{13}{16}$	10	2 15		$1\frac{1}{2}$	$16\frac{1}{4}$	8 80	
$\frac{27}{32}$	$10\frac{1}{4}$	2 30		$1\frac{27}{32}$	$16\frac{3}{8}$	9 00	
$\frac{7}{8}$	$10\frac{1}{2}$	2 45		$1\frac{7}{8}$	$16\frac{1}{2}$	9 20	
$\frac{29}{32}$	$10\frac{5}{8}$	2 60	No. 3.	$1\frac{29}{32}$	$16\frac{1}{2}$	9 35	
				$1\frac{15}{16}$	$16\frac{1}{2}$	9 50	
$\frac{15}{16}$	$10\frac{3}{4}$	2 75		$1\frac{31}{32}$	$16\frac{1}{2}$	9 65	
$\frac{31}{32}$	$10\frac{7}{8}$	2 90		2	$16\frac{1}{2}$	9 80	
1	11	3 00					No. 5.
$1\frac{1}{32}$	$11\frac{1}{8}$	3 20		$2\frac{1}{32}$	$16\frac{1}{2}$	10 20	
$1\frac{1}{16}$	$11\frac{1}{4}$	3 40		$2\frac{1}{16}$	17	10 60	
$1\frac{1}{32}$	$11\frac{1}{2}$	3 60		$2\frac{1}{32}$	17	10 90	

Drills with grinding line furnished on sizes $\frac{3}{8}$ and larger when desired.

Sixty-fourth sizes furnished at the price of the next larger size.

Drills with even twist furnished if wanted.

*Discount changes at $1\frac{1}{2}$ inch diameter.

(Continued on next page)

Increase Twist Drills

With Taper Shanks

(Continued)



No. 102

Diam. Inches.	Length, Inches.	Price, Each.	Shank, Taper.	Diam. Inches.	Length, Inches.	Price, Each.	Shank, Taper.
$2\frac{1}{8}$	17	\$11 20	No. 5.	$3\frac{5}{8}$	23	\$40 00	No. 6.
$2\frac{3}{32}$	17	11 60		$3\frac{3}{8}$	23	43 00	
$2\frac{7}{16}$	17	12 00		$3\frac{7}{16}$	23	46 00	
$2\frac{1}{2}$	$17\frac{1}{2}$	12 40		$3\frac{1}{2}$	24	49 50	
$2\frac{1}{4}$	$17\frac{1}{2}$	12 80		$3\frac{9}{16}$	24	53 00	
$2\frac{9}{32}$	$17\frac{1}{2}$	13 20		$3\frac{5}{8}$	24	57 00	
$2\frac{5}{16}$	$17\frac{1}{2}$	13 60		$3\frac{11}{16}$	24	60 00	
$2\frac{11}{16}$	18	14 00		$3\frac{3}{4}$	24	63 00	
$2\frac{3}{8}$	18	14 40		$3\frac{13}{16}$	24	66 00	
$2\frac{13}{32}$	$18\frac{1}{2}$	14 70		$3\frac{7}{8}$	24	69 00	
$2\frac{7}{16}$	$18\frac{1}{2}$	15 00		$3\frac{15}{16}$	24	72 00	
$2\frac{15}{32}$	19	15 30		4	25	75 00	
$2\frac{1}{2}$	19	15 60		$4\frac{1}{16}$	25	78 00	
$2\frac{17}{32}$	$19\frac{1}{4}$	15 90		$4\frac{1}{8}$	25	81 00	
$2\frac{9}{16}$	$19\frac{1}{4}$	16 20		$4\frac{3}{16}$	25	84 00	
$2\frac{19}{32}$	$19\frac{1}{2}$	16 50		$4\frac{1}{4}$	25	87 00	
$2\frac{5}{8}$	$19\frac{1}{2}$	16 80		$4\frac{5}{16}$	25	90 50	
$2\frac{33}{32}$	20	17 20		$4\frac{3}{8}$	25	94 00	
$2\frac{11}{16}$	20	17 60		$4\frac{7}{16}$	25	97 50	
$2\frac{13}{32}$	$20\frac{1}{2}$	18 30		$4\frac{1}{2}$	26	101 00	
$2\frac{3}{4}$	$20\frac{1}{2}$	19 00		$4\frac{9}{16}$	26	103 50	
$2\frac{25}{32}$	$20\frac{1}{2}$	19 50		$4\frac{5}{8}$	26	107 00	
$2\frac{13}{16}$	$20\frac{1}{2}$	20 00		$4\frac{11}{16}$	26	110 50	
$2\frac{27}{32}$	21	20 50		$4\frac{3}{4}$	26	114 00	
$2\frac{7}{8}$	21	21 00		$4\frac{13}{16}$	26	117 50	
$2\frac{29}{32}$	21	22 00		$4\frac{7}{8}$	26	121 00	
$2\frac{15}{16}$	21	23 00		$4\frac{15}{16}$	26	124 50	
$2\frac{31}{32}$	22	24 00		5	27	128 00	
3	22	25 00		$5\frac{1}{8}$	27	134 00	
			No. 6.	$5\frac{1}{4}$	27	140 00	
$3\frac{1}{16}$	22	28 00		$5\frac{3}{8}$	27	146 00	
$3\frac{1}{8}$	22	31 00		$5\frac{7}{8}$	27	152 00	
$3\frac{3}{16}$	22	34 00		$5\frac{1}{2}$	28	158 00	
$3\frac{1}{4}$	23	37 00		$5\frac{3}{4}$	28	164 00	
				$5\frac{7}{8}$	28	170 00	
				6	28	176 00	

Drills with grinding line furnished on sizes $\frac{3}{8}$ and larger when desired.

Sixty-fourth sizes furnished at the price of the next larger size.

Drills with even twist furnished if wanted.

Increase Twist Drills

With Taper Shanks



No. 102 Special

Shanks Larger Than Regular

Diameter, Inches.	Price, Each.	Length, Inches.	Length of Twist, Inches.	Shank Taper.	Diameter, Inches.	Price, Each.	Length, Inches.	Length of Twist, Inches.	Shank Taper.
$\frac{5}{16}$	\$1 90	6 $\frac{7}{8}$	3 $\frac{1}{16}$	No. 2	$\frac{49}{64}$	\$2 75	10 $\frac{3}{16}$	6 $\frac{1}{16}$	No. 3
$\frac{3}{16}$	1 90	7	3 $\frac{3}{16}$	No. 2	$\frac{33}{64}$	2 75	10 $\frac{3}{16}$	6 $\frac{1}{16}$	No. 3
$\frac{11}{32}$	1 90	7	3 $\frac{3}{16}$	No. 2	$\frac{51}{64}$	2 80	10 $\frac{11}{16}$	6 $\frac{3}{16}$	No. 3
$\frac{23}{64}$	1 90	7 $\frac{1}{4}$	3 $\frac{7}{16}$	No. 2	$\frac{13}{16}$	2 80	10 $\frac{11}{16}$	6 $\frac{3}{16}$	No. 3
$\frac{3}{8}$	1 90	7 $\frac{1}{4}$	3 $\frac{7}{16}$	No. 2	$\frac{33}{64}$	2 80	10 $\frac{11}{16}$	6 $\frac{7}{16}$	No. 3
$\frac{25}{64}$	1 90	7 $\frac{1}{2}$	3 $\frac{11}{16}$	No. 2	$\frac{37}{64}$	2 85	10 $\frac{11}{16}$	6 $\frac{7}{16}$	No. 3
$\frac{13}{32}$	1 90	7 $\frac{1}{2}$	3 $\frac{11}{16}$	No. 2	$\frac{55}{64}$	2 85	11 $\frac{3}{16}$	6 $\frac{11}{16}$	No. 3
$\frac{27}{64}$	1 90	7 $\frac{3}{4}$	3 $\frac{15}{16}$	No. 2	$\frac{7}{8}$	2 85	11 $\frac{3}{16}$	6 $\frac{11}{16}$	No. 3
$\frac{7}{16}$	1 90	7 $\frac{3}{4}$	3 $\frac{15}{16}$	No. 2	$\frac{57}{64}$	2 90	11 $\frac{5}{16}$	6 $\frac{13}{16}$	No. 3
$\frac{29}{64}$	1 90	8	4 $\frac{3}{16}$	No. 2	$\frac{33}{32}$	2 90	11 $\frac{5}{16}$	6 $\frac{13}{16}$	No. 3
$\frac{15}{32}$	1 90	8	4 $\frac{3}{16}$	No. 2					
$\frac{31}{64}$	1 95	8 $\frac{1}{4}$	4 $\frac{7}{16}$	No. 2	1 $\frac{1}{8}$	5 70	12 $\frac{3}{4}$	7 $\frac{1}{4}$	No. 4
$\frac{1}{2}$	1 95	8 $\frac{1}{4}$	4 $\frac{7}{16}$	No. 2	1 $\frac{9}{64}$	5 70	12 $\frac{7}{8}$	7 $\frac{3}{8}$	No. 4
$\frac{33}{64}$	1 95	8 $\frac{1}{2}$	4 $\frac{11}{16}$	No. 2	1 $\frac{3}{32}$	5 75	12 $\frac{7}{8}$	7 $\frac{3}{8}$	No. 4
$\frac{17}{32}$	2 00	8 $\frac{1}{2}$	4 $\frac{11}{16}$	No. 2	1 $\frac{11}{64}$	5 75	13	7 $\frac{1}{2}$	No. 4
$\frac{35}{64}$	2 00	8 $\frac{3}{4}$	4 $\frac{15}{16}$	No. 2	1 $\frac{3}{16}$	5 80	13	7 $\frac{1}{2}$	No. 4
$\frac{9}{16}$	2 00	8 $\frac{3}{4}$	4 $\frac{15}{16}$	No. 2	1 $\frac{13}{64}$	5 80	13 $\frac{1}{8}$	7 $\frac{5}{8}$	No. 4
					1 $\frac{7}{32}$	5 85	13 $\frac{1}{8}$	7 $\frac{5}{8}$	No. 4
					1 $\frac{15}{64}$	5 85	13 $\frac{1}{2}$	8	No. 4
					1 $\frac{1}{4}$	5 90	13 $\frac{1}{2}$	8	No. 4
$\frac{39}{64}$	2 75	9 $\frac{7}{16}$	4 $\frac{15}{16}$	No. 3					
$\frac{5}{8}$	2 75	9 $\frac{7}{16}$	4 $\frac{15}{16}$	No. 3	1 $\frac{3}{4}$	10 85	17 $\frac{1}{4}$	10 $\frac{1}{2}$	No. 5
$\frac{41}{64}$	2 75	9 $\frac{11}{16}$	5 $\frac{3}{16}$	No. 3	1 $\frac{33}{64}$	10 85	17 $\frac{1}{4}$	10 $\frac{1}{2}$	No. 5
$\frac{21}{32}$	2 75	9 $\frac{11}{16}$	5 $\frac{3}{16}$	No. 3	1 $\frac{1}{2}$	10 85	17 $\frac{1}{2}$	10 $\frac{3}{4}$	No. 5
$\frac{43}{64}$	2 75	9 $\frac{15}{16}$	5 $\frac{7}{16}$	No. 3	1 $\frac{27}{64}$	10 85	17 $\frac{1}{2}$	10 $\frac{3}{4}$	No. 5
$\frac{11}{16}$	2 75	9 $\frac{15}{16}$	5 $\frac{7}{16}$	No. 3	1 $\frac{7}{8}$	10 85	17 $\frac{3}{4}$	11	No. 5
$\frac{45}{64}$	2 75	10 $\frac{3}{16}$	5 $\frac{11}{16}$	No. 3	1 $\frac{33}{64}$	10 90	17 $\frac{3}{4}$	11	No. 5
$\frac{37}{64}$	2 75	10 $\frac{3}{16}$	5 $\frac{11}{16}$	No. 3	1 $\frac{15}{16}$	10 95	17 $\frac{3}{4}$	11	No. 5
$\frac{47}{64}$	2 75	10 $\frac{7}{16}$	5 $\frac{15}{16}$	No. 3	1 $\frac{31}{64}$	11 00	17 $\frac{3}{4}$	11	No. 5
$\frac{3}{4}$	2 75	10 $\frac{7}{16}$	5 $\frac{15}{16}$	No. 3	2	11 10	17 $\frac{3}{4}$	11	No. 5

Taper Shank Twist Drills

Millimeter Sizes



No. 102 E

Diameter M. M.	Price Each	Diameter in Decimals of 1 in.	Length M. M.	Length of Twist M. M.	Shank Taper.	Diameter M. M.	Price Each.	Diameter in Decimals of 1 in.	Length M. M.	Length of Twist M. M.	Shank Taper.
3.	\$0.45	.1181	116	43	No. 1	21	\$2.30	.8267	260	163	No. 2
3.5	.45	.1378	119	46	No. 1	21.5	2.45	.8464	267	170	No. 2
4	.45	.1575	124	51	No. 1	22	2.45	.8661	267	170	No. 2
4.5	.50	.1771	129	56	No. 1	22.5	2.60	.8858	270	173	No. 2
5	.55	.1968	146	71	No. 1	23	2.60	.9055	270	173	No. 2
5.5	.55	.2165	152	76	No. 1						
6	.60	.2362	155	76	No. 1						
6.5	.65	.2559	159	79	No. 1	23.5	2.75	.9252	273	159	No. 3
7	.65	.2756	159	75	No. 1	24	2.90	.9449	273	159	No. 3
7.5	.70	.2953	162	78	No. 1	24.5	2.90	.9646	276	162	No. 3
8	.75	.3149	162	78	No. 1	25	3.00	.9842	279	165	No. 3
8.5	.75	.3346	165	81	No. 1	25.5	3.20	1.0039	282	168	No. 3
9	.80	.3543	165	81	No. 1	26	3.20	1.0236	282	168	No. 3
9.5	.80	.3740	172	87	No. 1	26.5	3.40	1.0433	286	172	No. 3
10	.85	.3937	178	94	No. 1	27	3.60	1.0629	286	172	No. 3
10.5	.90	.4134	184	100	No. 1	27.5	3.60	1.0827	292	178	No. 3
11	.90	.4330	184	100	No. 1	28	3.80	1.1024	292	178	No. 3
11.5	.95	.4527	191	107	No. 1	28.5	3.80	1.1220	298	184	No. 3
12	1.00	.4724	191	107	No. 1	29	4.00	1.1417	302	187	No. 3
12.5	1.00	.4921	197	113	No. 1	29.5	4.20	1.1614	305	190	No. 3
13	1.10	.5118	197	113	No. 1	30	4.20	1.1811	305	190	No. 3
13.5	1.20	.5315	203	119	No. 1	30.5	4.40	1.2008	308	194	No. 3
14	1.20	.5512	210	125	No. 1	31	4.50	1.2205	308	194	No. 3
14.5	1.30	.5708	216	132	No. 1	31.5	4.50	1.2401	317	203	No. 3
						32	4.65	1.2598	317	203	No. 3
15	1.30	.5905	216	132	No. 2						
15.5	1.40	.6102	222	125	No. 2	32.5	4.65	1.2795	359	219	No. 4
16	1.50	.6299	222	125	No. 2	33	4.80	1.2992	362	222	No. 4
16.5	1.50	.6496	229	132	No. 2	33.5	5.00	1.3190	362	222	No. 4
17	1.60	.6693	229	132	No. 2	34	5.00	1.3386	365	225	No. 4
17.5	1.70	.6890	241	144	No. 2	34.5	5.20	1.3583	365	225	No. 4
18	1.70	.7086	241	144	No. 2	35	5.20	1.3779	368	229	No. 4
18.5	1.85	.7283	247	151	No. 2	35.5	5.40	1.3977	372	232	No. 4
19	1.85	.7480	247	151	No. 2	36	5.60	1.4173	372	232	No. 4
19.5	2.00	.7677	251	154	No. 2	36.5	5.60	1.4370	375	235	No. 4
20	2.15	.7874	251	154	No. 2	37	5.80	1.4567	378	238	No. 4
20.5	2.15	.8071	254	157	No. 2	37.5	6.00	1.4764	378	238	No. 4

Continued on next page.

Taper Shank Twist Drills—Continued

Millimeter Sizes



No. 102 E

Diameter M. M.	Price Each.	Diameter in Decimals of 1 in.	Length M. M.	Length of Twist M. M.	Shank Taper.	Diameter M. M.	Price Each	Diameter in Decimals of 1 in.	Length M. M.	Length of Twist M. M.	Shank Taper.
38	\$6.00	1.4961	381	241	No. 4	57	\$12.80	2.2441	445	260	No. 5
*38.5	6.30	1.5157	381	241	No. 4	57.5	13.20	2.2637	445	260	No. 5
39	6.60	1.5354	381	241	No. 4	58	13.60	2.2835	445	260	No. 5
39.5	6.60	1.5551	387	248	No. 4	58.5	13.60	2.3031	445	260	No. 5
40	6.90	1.5748	387	248	No. 4	59	14.00	2.3228	445	260	No. 5
40.5	6.90	1.5945	387	248	No. 4	59.5	14.40	2.3425	445	260	No. 5
41	7.20	1.6142	394	254	No. 4	60	14.40	2.3622	457	269	No. 5
41.5	7.50	1.6338	394	254	No. 4	60.5	14.70	2.3819	457	269	No. 5
42	7.50	1.6536	394	254	No. 4	61	14.70	2.4015	457	269	No. 5
42.5	7.80	1.6733	400	260	No. 4	61.5	15.00	2.4212	457	269	No. 5
43	8.10	1.6929	400	260	No. 4	62	15.30	2.4409	470	283	No. 5
43.5	8.10	1.7126	400	260	No. 4	62.5	15.30	2.4606	470	283	No. 5
44	8.40	1.7323	406	256	No. 4	63	15.60	2.4803	483	292	No. 5
44.5	8.40	1.7519	406	256	No. 4	63.5	15.60	2.5000	483	292	No. 5
45	8.60	1.7717	406	256	No. 4	64	15.90	2.5197	483	292	No. 5
45.5	8.80	1.7914	406	256	No. 4	64.5	15.90	2.5393	483	292	No. 5
46	8.80	1.8110	413	260	No. 4	65	16.20	2.5591	489	298	No. 5
46.5	9.00	1.8307	413	260	No. 4	65.5	16.50	2.5787	489	298	No. 5
47	9.20	1.8504	413	260	No. 4	66	16.80	2.5984	495	302	No. 5
47.5	9.20	1.8701	419	267	No. 4	66.5	16.80	2.6181	495	302	No. 5
48	9.35	1.8898	419	267	No. 4	67	17.20	2.6378	495	302	No. 5
48.5	9.35	1.9094	419	267	No. 4	67.5	17.20	2.6574	495	302	No. 5
49	9.50	1.9291	419	267	No. 4	68	17.60	2.6772	508	314	No. 5
49.5	9.65	1.9488	419	264	No. 4	68.5	18.30	2.6969	508	314	No. 5
50	9.65	1.9685	419	264	No. 4	69	18.30	2.7165	521	324	No. 5
50.5	9.80	1.9882	419	264	No. 4	69.5	19.00	2.7362	521	324	No. 5
						70	19.00	2.7559	521	324	No. 5
51	10.20	2.0079	419	244	No. 5	70.5	19.50	2.7756	521	324	No. 5
51.5	10.20	2.0276	419	244	No. 5	71	20.00	2.7952	521	324	No. 5
52	10.60	2.0473	432	257	No. 5	71.5	20.00	2.8149	521	324	No. 5
52.5	10.60	2.0670	432	257	No. 5	72	20.50	2.8347	521	324	No. 5
53	10.90	2.0866	432	257	No. 5	72.5	21.00	2.8543	521	324	No. 5
53.5	11.20	2.1063	432	257	No. 5	73	21.00	2.8740	533	333	No. 5
54	11.20	2.1259	432	257	No. 5	73.5	22.00	2.8937	533	333	No. 5
54.5	11.60	2.1456	432	257	No. 5	74	23.00	2.9134	533	333	No. 5
55	12.00	2.1654	432	257	No. 5	74.5	23.00	2.9330	533	333	No. 5
55.5	12.00	2.1851	432	257	No. 5	75	24.00	2.9527	533	333	No. 5
56	12.40	2.2047	432	257	No. 5	75.5	25.00	2.9724	533	333	No. 5
56.5	12.80	2.2244	432	257	No. 5	76	25.00	2.9921	559	355	No. 5

*Discount changes at 38.5 MM diameter.

Straight Shank Drills

Taper Shank Lengths



No. 104

Diameter Inches.	Length Inches.	Length of Shank, Inches.	Price Each.	Diameter Inches.	Length Inches.	Length of Shank, Inches.	Price Each.
$\frac{1}{16}$	$3\frac{5}{8}$	$2\frac{1}{8}$	\$0 35	$\frac{3}{32}$	$10\frac{1}{4}$	$3\frac{1}{2}$	\$2 30
$\frac{3}{32}$	$4\frac{3}{8}$	$2\frac{1}{2}$	40	$\frac{7}{8}$	$10\frac{1}{2}$	$3\frac{1}{2}$	2 45
$\frac{1}{8}$	$5\frac{1}{8}$	$2\frac{1}{2}$	45	$\frac{3}{16}$	$10\frac{5}{8}$	$3\frac{3}{4}$	2 60
$\frac{5}{32}$	$5\frac{3}{8}$	$2\frac{1}{2}$	45	$\frac{1}{16}$	$10\frac{3}{4}$	$3\frac{3}{4}$	2 75
$\frac{3}{16}$	$5\frac{5}{8}$	$2\frac{1}{2}$	50	$\frac{3}{32}$	$10\frac{7}{8}$	$3\frac{3}{4}$	2 90
$\frac{7}{32}$	$5\frac{7}{8}$	$2\frac{1}{2}$	55	1	11	$3\frac{3}{4}$	3 00
$\frac{1}{4}$	$6\frac{1}{8}$	$2\frac{1}{2}$	60	$1\frac{1}{32}$	$11\frac{1}{8}$	4	3 20
$\frac{9}{32}$	$6\frac{1}{4}$	$2\frac{5}{8}$	65	$1\frac{1}{16}$	$11\frac{1}{4}$	4	3 40
$\frac{5}{16}$	$6\frac{3}{8}$	$2\frac{5}{8}$	70	$1\frac{3}{32}$	$11\frac{1}{2}$	4	3 60
$\frac{11}{32}$	$6\frac{1}{2}$	$2\frac{5}{8}$	75	$1\frac{1}{8}$	$11\frac{3}{4}$	4	3 80
$\frac{3}{8}$	$6\frac{3}{4}$	$2\frac{5}{8}$	80	$1\frac{5}{32}$	$11\frac{7}{8}$	$4\frac{1}{4}$	4 00
$\frac{13}{32}$	7	$2\frac{3}{4}$	85	$1\frac{1}{16}$	12	$4\frac{1}{4}$	4 20
$\frac{7}{16}$	$7\frac{1}{4}$	$2\frac{3}{4}$	90	$1\frac{7}{32}$	$12\frac{1}{8}$	$4\frac{1}{4}$	4 40
$\frac{15}{32}$	$7\frac{1}{2}$	$2\frac{3}{4}$	95	$1\frac{1}{4}$	$12\frac{1}{2}$	$4\frac{1}{4}$	4 50
$\frac{1}{2}$	$7\frac{3}{4}$	$2\frac{3}{4}$	1 00	$1\frac{9}{32}$	$14\frac{1}{8}$	$4\frac{3}{4}$	4 65
$\frac{17}{32}$	8	3	1 10	$1\frac{5}{16}$	$14\frac{1}{4}$	$4\frac{3}{4}$	4 80
$\frac{9}{16}$	$8\frac{1}{4}$	3	1 20	$1\frac{11}{32}$	$14\frac{3}{8}$	$4\frac{3}{4}$	5 00
$\frac{19}{32}$	$8\frac{1}{2}$	3	1 30	$1\frac{3}{8}$	$14\frac{1}{2}$	$4\frac{3}{4}$	5 20
$\frac{5}{8}$	$8\frac{3}{4}$	3	1 40	$1\frac{13}{32}$	$14\frac{5}{8}$	5	5 40
$\frac{21}{32}$	9	$3\frac{1}{4}$	1 50	$1\frac{1}{16}$	$14\frac{3}{4}$	5	5 60
$\frac{11}{16}$	$9\frac{1}{4}$	$3\frac{1}{4}$	1 60	$1\frac{15}{32}$	$14\frac{7}{8}$	5	5 80
$\frac{23}{32}$	$9\frac{1}{2}$	$3\frac{1}{4}$	1 70	$*1\frac{1}{2}$	15	5	6 00
$\frac{3}{4}$	$9\frac{3}{4}$	$3\frac{1}{4}$	1 85	$1\frac{17}{32}$	$15\frac{1}{8}$	$5\frac{1}{4}$	6 30
$\frac{25}{32}$	$9\frac{7}{8}$	$3\frac{1}{2}$	2 00	$1\frac{9}{16}$	$15\frac{1}{4}$	$5\frac{1}{4}$	6 60
$\frac{13}{16}$	0	$3\frac{1}{2}$	2 15	$1\frac{19}{32}$	$15\frac{3}{8}$	$5\frac{1}{4}$	6 90

*Discount changes at $1\frac{1}{2}$ inch diameter.

Continued on next page.

Straight Shank Drills—Continued

Taper Shank Lengths



No. 104

Diameter Inches.	Length Inches.	Length of Shank, Inches.	Price Each.	Diameter Inches.	Length Inches.	Length of Shank, Inches.	Price Each.
1 $\frac{5}{8}$	15 $\frac{1}{2}$	5 $\frac{1}{4}$	\$7 20	2 $\frac{1}{2}$	18	6	\$14 00
1 $\frac{3}{4}$	15 $\frac{5}{8}$	5 $\frac{1}{4}$	7 50	2 $\frac{3}{8}$	18	6	14 40
1 $\frac{1}{2}$	15 $\frac{3}{4}$	5 $\frac{1}{4}$	7 80	2 $\frac{1}{2}$	18 $\frac{1}{2}$	6	14 70
1 $\frac{3}{8}$	15 $\frac{7}{8}$	5 $\frac{1}{4}$	8 10	2 $\frac{7}{16}$	18 $\frac{1}{2}$	6	15 00
1 $\frac{3}{4}$	16	5 $\frac{1}{4}$	8 40	2 $\frac{1}{2}$	19	6	15 30
1 $\frac{3}{8}$	16 $\frac{1}{8}$	5 $\frac{1}{2}$	8 60	2 $\frac{1}{2}$	19	6	15 60
1 $\frac{1}{2}$	16 $\frac{1}{4}$	5 $\frac{1}{2}$	8 80	2 $\frac{1}{2}$	19 $\frac{1}{4}$	6	15 90
1 $\frac{3}{8}$	16 $\frac{3}{8}$	5 $\frac{1}{2}$	9 00	2 $\frac{9}{16}$	19 $\frac{1}{4}$	6	16 20
1 $\frac{7}{8}$	16 $\frac{1}{2}$	5 $\frac{1}{2}$	9 20	2 $\frac{1}{2}$	19 $\frac{1}{2}$	6	16 50
1 $\frac{3}{8}$	16 $\frac{1}{2}$	5 $\frac{1}{2}$	9 35	2 $\frac{5}{8}$	19 $\frac{1}{2}$	6	16 80
1 $\frac{1}{2}$	16 $\frac{1}{2}$	5 $\frac{1}{2}$	9 50	2 $\frac{3}{4}$	20	6	17 20
1 $\frac{3}{8}$	16 $\frac{1}{2}$	5 $\frac{1}{2}$	9 65	2 $\frac{1}{2}$	20	6	17 60
2	16 $\frac{1}{2}$	5 $\frac{1}{2}$	9 80	2 $\frac{3}{4}$	20 $\frac{1}{2}$	6	18 30
2 $\frac{1}{8}$	16 $\frac{1}{2}$	6	10 20	2 $\frac{3}{4}$	20 $\frac{1}{2}$	6	19 00
2 $\frac{1}{16}$	17	6	10 60	2 $\frac{3}{4}$	20 $\frac{1}{2}$	6	19 50
2 $\frac{3}{8}$	17	6	10 90	2 $\frac{1}{2}$	20 $\frac{1}{2}$	6	20 00
2 $\frac{1}{8}$	17	6	11 20	2 $\frac{3}{4}$	21	6	20 50
2 $\frac{3}{8}$	17	6	11 60	2 $\frac{7}{8}$	21	6	21 00
2 $\frac{1}{16}$	17	6	12 00	2 $\frac{3}{4}$	21	6	22 00
2 $\frac{7}{8}$	17 $\frac{1}{2}$	6	12 40	2 $\frac{1}{2}$	21	6	23 00
2 $\frac{1}{4}$	17 $\frac{1}{2}$	6	12 80	2 $\frac{3}{4}$	22	6	24 00
2 $\frac{3}{8}$	17 $\frac{1}{2}$	6	13 20	3	22	6	25 00
2 $\frac{5}{16}$	17 $\frac{1}{2}$	6	13 60				

Sixty-fourth sizes furnished at the price of the next larger size.

Drills 2 $\frac{1}{4}$ to 3 have shanks 1 $\frac{3}{4}$ inches diameter by 6 inches long.

Straight Shank Twist Drills

Taper Shank Lengths

Millimeter Sizes



No. 104 E.

Diameter, M. M.	Price, Each.	Diameter in Decimals of 1 inch.	Length, M. M.	Length of Twist.	Diameter, M. M.	Price, Each.	Diameter in Decimals of 1 inch.	Length, M. M.	Length of Twist.
3	\$0.45	.1181	117	57	21.5	\$2.45	.8464	267	178
3.5	.45	.1378	133	70	22	2.45	.8661	267	178
4	.45	.1575	137	76	22.5	2.60	.8858	270	178
4.5	.50	.1771	140	83	23	2.60	.9055	270	178
5	.55	.1968	146	89	23.5	2.75	.9252	273	178
5.5	.55	.2165	152	102	24	2.90	.9449	273	178
6	.60	.2362	155	102	24.5	2.90	.9646	276	181
6.5	.65	.2559	155	102	25	3.00	.9842	279	182
7	.65	.2756	159	102	25.5	3.20	1.0039	282	186
7.5	.70	.2953	162	103	26	3.20	1.0236	282	186
8	.75	.3149	162	103	26.5	3.40	1.0433	286	187
8.5	.75	.3346	165	105	27	3.60	1.0629	286	187
9	.80	.3543	165	105	27.5	3.60	1.0827	292	194
9.5	.80	.3740	172	103	28	3.80	1.1024	292	194
10	.85	.3937	178	111	28.5	3.80	1.1220	298	200
10.5	.90	.4134	184	117	29	4.00	1.1417	302	203
11	.90	.4330	184	117	29.5	4.20	1.1614	305	206
11.5	.95	.4527	191	124	30	4.20	1.1811	305	206
12	1.00	.4724	191	124	30.5	4.40	1.2008	308	206
12.5	1.00	.4921	197	127	31	4.50	1.2205	308	206
13	1.10	.5118	197	127	31.5	4.50	1.2401	317	216
13.5	1.20	.5315	203	133	32	4.65	1.2598	317	216
14	1.20	.5512	210	137	32.5	4.65	1.2795	359	232
14.5	1.30	.5708	216	143	33	4.80	1.2992	362	235
15	1.30	.5905	216	143	33.5	5.00	1.3190	362	235
15.5	1.40	.6102	222	146	34	5.00	1.3386	365	238
16	1.50	.6299	222	146	34.5	5.20	1.3583	365	238
16.5	1.50	.6496	229	149	35	5.20	1.3779	368	241
17	1.60	.6693	229	149	35.5	5.40	1.3977	372	241
17.5	1.70	.6890	241	157	36	5.60	1.4173	372	241
18	1.70	.7086	241	157	36.5	5.60	1.4370	375	244
18.5	1.85	.7283	247	162	37	5.80	1.4567	378	248
19	1.85	.7480	247	162	37.5	6.00	1.4764	378	248
19.5	2.00	.7677	251	165	38	6.00	1.4961	381	251
20	2.15	.7874	251	165	*38.5	6.30	1.5157	381	241
20.5	2.15	.8071	254	168	39	6.60	1.5354	381	241
21	2.30	.8267	260	171	39.5	6.60	1.5551	387	248

Drills 51 to 76 M. M. diameter have shanks 44.5 M. M. diameter 152 M. M. long.

Can be furnished with Two-Grooved Shanks if required.

*Discount changes at 38.5 M. M. diameter.

Continued on next page.

Straight Shank Twist Drills—Continued

Taper Shank Lengths

Millimeter Sizes



No. 104 E.

Diameter, M. M.	Price, Each	Diameter in Decimals of 1 inch.	Length, M. M.	Length of Twist.	Diameter M. M.	Price, Each.	Diameter in Decimals of 1 inch	Length, M. M.	Length of Twist.
40	\$6.90	1.5748	387	248	58.5	\$13.60	2.3031	445	260
40.5	6.90	1.5945	387	248	59	14.00	2.3228	445	260
41	7.20	1.6142	394	254	59.5	14.40	2.3425	445	260
41.5	7.50	1.6338	394	254	60	14.40	2.3622	457	273
42	7.50	1.6536	394	254	60.5	14.70	2.3819	457	270
42.5	7.80	1.6733	400	260	61	14.70	2.4015	457	270
43	8.10	1.6929	400	260	61.5	15.00	2.4212	457	270
43.5	8.10	1.7126	400	260	62	15.30	2.4409	470	283
44	8.40	1.7323	406	267	62.5	15.30	2.4606	470	283
44.5	8.40	1.7519	406	267	63	15.60	2.4803	483	295
45	8.60	1.7717	406	267	63.5	15.60	2.5000	483	292
45.5	8.80	1.7914	406	267	64	15.90	2.5197	483	292
46	8.80	1.8110	413	273	64.5	15.90	2.5393	483	292
46.5	9.00	1.8307	413	273	65	16.20	2.5591	489	298
47	9.20	1.8504	413	273	65.5	16.50	2.5787	489	298
47.5	9.20	1.8701	419	279	66	16.80	2.5984	495	305
48	9.35	1.8898	419	279	66.5	16.80	2.6181	495	305
48.5	9.35	1.9094	419	279	67	17.20	2.6378	495	302
49	9.50	1.9291	419	279	67.5	17.20	2.6574	495	302
49.5	9.65	1.9488	419	279	68	17.60	2.6772	508	314
50	9.65	1.9685	419	279	68.5	18.30	2.6969	508	314
50.5	9.80	1.9882	419	279	69	18.30	2.7165	521	327
51	10.20	2.0079	419	244	69.5	19.00	2.7362	521	327
51.5	10.20	2.0276	419	244	70	19.00	2.7559	521	324
52	10.60	2.0473	432	257	70.5	19.50	2.7756	521	324
52.5	10.60	2.0670	432	257	71	20.00	2.7952	521	324
53	10.90	2.0866	432	257	71.5	20.00	2.8149	521	324
53.5	11.20	2.1063	432	257	72	20.50	2.8347	521	324
54	11.20	2.1259	432	257	72.5	21.00	2.8543	521	324
54.5	11.60	2.1456	432	257	73	21.00	2.8740	533	333
55	12.00	2.1654	432	257	73.5	22.00	2.8937	533	333
55.5	12.00	2.1851	432	257	74	23.00	2.9134	533	333
56	12.40	2.2047	432	257	74.5	23.00	2.9330	533	333
56.5	12.80	2.2244	432	257	75	24.00	2.9527	533	333
57	12.80	2.2441	445	270	75.5	25.00	2.9724	533	333
57.5	13.20	2.2637	445	260	76	25.00	2.9921	559	359
58	13.60	2.2835	445	260					

Drills 51 to 76 M. M. diameter have shanks 44.5 M. M. diameter 152 M. M. long.

Can be furnished with Two-Grooved Shanks if required.

Jobbers' Drills



No. 105

No. 106

JOBBER'S AND MACHINISTS' SETS				LETTER SIZES				
Diameter, Inches.	Length, Inches.	Price per Dozen.	Price Each.	Diameter.	Decimals of 1 Inch.	Length, Inches.	Price per Dozen.	Price Each.
$\frac{1}{16}$	2 $\frac{1}{2}$	\$1 00	\$0 09	A $\frac{15}{64}$ inch. ....	.234	3 $\frac{1}{8}$	\$2 90	\$0 26
$\frac{5}{64}$	2 $\frac{5}{8}$	1 10	10	B	.238	3 $\frac{1}{8}$	3 00	27
$\frac{3}{32}$	2 $\frac{3}{4}$	1 20	11	C	.242	3 $\frac{1}{8}$	3 10	28
$\frac{7}{64}$	2 $\frac{7}{8}$	1 30	12	D	.246	3 $\frac{1}{8}$	3 20	29
$\frac{1}{8}$	3	1 45	13	E $\frac{1}{4}$ inch. ....	.250	3 $\frac{1}{8}$	3 30	30
$\frac{9}{64}$	3 $\frac{1}{8}$	1 60	15	F	.257	4 $\frac{1}{4}$	3 40	30
$\frac{5}{32}$	3 $\frac{1}{4}$	1 80	16	G	.261	4 $\frac{1}{4}$	3 50	31
$\frac{11}{64}$	3 $\frac{3}{8}$	2 00	18	H $\frac{17}{64}$ inch. ....	.266	4 $\frac{1}{4}$	3 60	32
$\frac{3}{16}$	3 $\frac{1}{2}$	2 20	20	I	.272	4 $\frac{1}{4}$	3 70	33
$\frac{13}{64}$	3 $\frac{5}{8}$	2 40	21	J	.277	4 $\frac{1}{4}$	3 80	34
$\frac{7}{32}$	3 $\frac{3}{4}$	2 65	23	K $\frac{9}{32}$ inch. ....	.281	4 $\frac{1}{4}$	3 90	35
$\frac{15}{64}$	3 $\frac{7}{8}$	2 90	26	L	.290	4 $\frac{1}{4}$	4 00	36
$\frac{1}{4}$	4	3 15	28	M $\frac{19}{64}$ inch. ....	.295	4 $\frac{1}{4}$	4 10	36
$\frac{17}{64}$	4 $\frac{1}{8}$	3 40	30	N	.302	4 $\frac{1}{4}$	4 20	37
$\frac{9}{32}$	4 $\frac{1}{4}$	3 65	32	O $\frac{5}{16}$ inch. ....	.316	4 $\frac{1}{4}$	4 30	38
$\frac{19}{64}$	4 $\frac{3}{8}$	3 90	35	P $\frac{21}{64}$ inch. ....	.323	4 $\frac{5}{8}$	4 40	39
$\frac{5}{16}$	4 $\frac{1}{2}$	4 20	37	Q	.332	4 $\frac{3}{4}$	4 60	40
$\frac{21}{64}$	4 $\frac{5}{8}$	4 50	40	R $\frac{11}{32}$ inch. ....	.339	4 $\frac{3}{4}$	4 80	42
$\frac{11}{32}$	4 $\frac{3}{4}$	4 80	42	S	.348	4 $\frac{7}{8}$	5 00	44
$\frac{23}{64}$	4 $\frac{7}{8}$	5 10	45	T $\frac{23}{64}$ inch. ....	.358	4 $\frac{7}{8}$	5 20	45
$\frac{3}{8}$	5	5 40	48	U	.368	5	5 40	47
$\frac{25}{64}$	5 $\frac{1}{8}$	5 70	50	V $\frac{3}{8}$ inch. ....	.377	5	5 60	49
$\frac{13}{32}$	5 $\frac{1}{4}$	6 00	53	W $\frac{25}{64}$ inch. ....	.386	5 $\frac{1}{8}$	5 80	51
$\frac{27}{64}$	5 $\frac{3}{8}$	6 40	55	X	.397	5 $\frac{1}{4}$	6 00	53
$\frac{7}{16}$	5 $\frac{1}{2}$	6 80	59	Y $\frac{13}{32}$ inch. ....	.404	5 $\frac{1}{4}$	6 40	55
$\frac{29}{64}$	5 $\frac{5}{8}$	7 20	63	Z	.413	5 $\frac{3}{8}$	6 80	59
$\frac{15}{32}$	5 $\frac{3}{4}$	7 50	65					
$\frac{31}{64}$	5 $\frac{7}{8}$	7 75	67					
$\frac{1}{2}$	6	8 00	70					

Can be furnished straight flute if desired.

Short or Jobbers' Length Straight Shank Drills

Millimeter Sizes



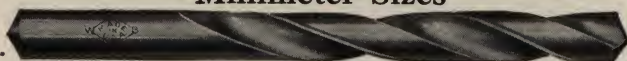
No. 105 E

Diameter, M. M.	Shank Length, M. M.	Shank Length, Inches.	Price, Per Dozen.	Price, Each.	Diameter, M. M.	Shank Length, M. M.	Shank Length, Inches.	Price, Per Dozen.	Price, Each.
.5	28	$\frac{5}{16}$	\$0 90	\$0 08	1.9	55	1	\$1 10	\$0 09
.55	29	$\frac{5}{16}$	90	08	1.95	56	1	1 10	09
.6	30	$\frac{3}{4}$	90	08	2.	57	$1\frac{1}{16}$	1 10	09
.65	31	$\frac{3}{4}$	90	08	2.05	57	$1\frac{1}{16}$	1 25	12
.7	32	$\frac{3}{4}$	90	08	2.1	58	$1\frac{1}{16}$	1 25	12
.75	33	$\frac{3}{4}$	90	08	2.15	59	$1\frac{1}{16}$	1 25	12
.8	34	$\frac{13}{16}$	90	08	2.2	60	$1\frac{1}{16}$	1 25	12
.85	35	$\frac{13}{16}$	90	08	2.25	61	$1\frac{1}{16}$	1 25	12
.9	36	$\frac{13}{16}$	90	08	2.3	62	$1\frac{1}{16}$	1 25	12
.95	37	$\frac{13}{16}$	90	08	2.35	63	$1\frac{1}{16}$	1 25	12
1.	38	$\frac{13}{16}$	90	08	2.4	64	$1\frac{1}{16}$	1 25	12
1.05	39	$\frac{7}{8}$	95	09	2.45	65	$1\frac{1}{16}$	1 25	12
1.1	40	$\frac{7}{8}$	95	09	2.5	66	$1\frac{1}{8}$	1 25	12
1.15	41	$\frac{7}{8}$	95	09	2.6	66	$1\frac{1}{8}$	1 40	14
1.2	42	$\frac{7}{8}$	95	09	2.7	67	$1\frac{1}{8}$	1 40	14
1.25	43	$\frac{7}{8}$	95	09	2.8	68	$1\frac{1}{8}$	1 40	14
1.3	44	$\frac{7}{8}$	95	09	2.9	69	$1\frac{1}{8}$	1 40	14
1.35	45	$\frac{7}{8}$	95	09	3.	70	$1\frac{1}{8}$	1 40	14
1.4	46	$\frac{15}{16}$	95	09	3.1	71	$1\frac{1}{8}$	1 55	15
1.45	47	$\frac{15}{16}$	95	09	3.2	72	$1\frac{1}{8}$	1 55	15
1.5	48	$\frac{15}{16}$	95	09	3.3	73	$1\frac{1}{8}$	1 55	15
1.55	48	1	1 10	09	3.4	74	$1\frac{1}{8}$	1 55	15
1.6	49	1	1 10	09	3.5	75	$1\frac{1}{8}$	1 55	15
1.65	50	1	1 10	09	3.6	76	$1\frac{1}{8}$	1 75	17
1.7	51	1	1 10	09	3.7	77	$1\frac{1}{8}$	1 75	17
1.75	52	1	1 10	09	3.8	78	$1\frac{3}{16}$	1 75	17
1.8	53	1	1 10	09	3.9	79	$1\frac{3}{16}$	1 75	17
1.85	54	1	1 10	09	4.	80	$1\frac{3}{16}$	1 75	17

Continued on next page.

Short or Jobbers' Length Straight Shank Drills—Continued

Millimeter Sizes



No. 105 E

Diameter M. M.	Shank Length, M. M.	Shank Length, Inches.	Price, Per Dozen.	Price, Each.	Diameter, M. M.	Shank Length, M. M.	Shank Length, Inches.	Price, Per Dozen.	Price, Each.
4.1	81	1 $\frac{3}{16}$	\$1 95	\$0 19	7.4	114	1 $\frac{5}{16}$	\$3 90	\$0 35
4.2	82	1 $\frac{3}{16}$	1 95	19	7.5	115	1 $\frac{5}{16}$	3 90	35
4.3	83	1 $\frac{3}{16}$	1 95	19	7.6	116	1 $\frac{5}{16}$	4 20	37
4.4	84	1 $\frac{3}{16}$	1 95	19	7.7	117	1 $\frac{5}{16}$	4 20	37
4.5	85	1 $\frac{3}{16}$	1 95	19	7.8	118	1 $\frac{5}{16}$	4 20	37
4.6	86	1 $\frac{3}{16}$	2 25	21	7.9	119	1 $\frac{5}{16}$	4 20	37
4.7	87	1 $\frac{3}{16}$	2 25	21	8.	120	1 $\frac{11}{32}$	4 20	37
4.8	88	1 $\frac{3}{16}$	2 25	21	8.1	121	1 $\frac{11}{32}$	4 80	42
4.9	89	1 $\frac{3}{16}$	2 25	21	8.2	122	1 $\frac{11}{32}$	4 80	42
5.	90	1 $\frac{3}{16}$	2 25	21	8.3	123	1 $\frac{11}{32}$	4 80	42
5.1	91	1 $\frac{3}{16}$	2 35	22	8.4	124	1 $\frac{11}{32}$	4 80	42
5.2	92	1 $\frac{3}{16}$	2 35	22	8.5	125	1 $\frac{11}{32}$	4 80	42
5.3	93	1 $\frac{3}{16}$	2 35	22	8.6	126	1 $\frac{11}{32}$	5 10	45
5.4	94	1 $\frac{3}{16}$	2 35	22	8.7	127	1 $\frac{11}{32}$	5 10	45
5.5	95	1 $\frac{3}{16}$	2 35	22	8.8	128	1 $\frac{11}{32}$	5 10	45
5.6	96	1 $\frac{3}{16}$	2 90	26	8.9	129	1 $\frac{3}{8}$	5 10	45
5.7	97	1 $\frac{3}{16}$	2 90	26	9.	130	1 $\frac{3}{8}$	5 10	45
5.8	98	1 $\frac{3}{16}$	2 90	26	9.1	131	1 $\frac{3}{8}$	5 40	48
5.9	99	1 $\frac{3}{16}$	2 90	26	9.2	132	1 $\frac{3}{8}$	5 40	48
6.	100	1 $\frac{3}{16}$	2 90	26	9.3	133	1 $\frac{3}{8}$	5 40	48
6.1	101	1 $\frac{3}{16}$	3 15	28	9.4	134	1 $\frac{3}{8}$	5 40	48
6.2	102	1 $\frac{3}{16}$	3 15	28	9.5	135	1 $\frac{3}{8}$	5 40	48
6.3	103	1 $\frac{3}{16}$	3 15	28	9.6	136	1 $\frac{11}{32}$	5 70	50
6.4	104	1 $\frac{3}{16}$	3 15	28	9.7	137	1 $\frac{11}{32}$	5 70	50
6.5	105	1 $\frac{3}{16}$	3 15	28	9.8	138	1 $\frac{11}{32}$	5 70	50
6.6	106	1 $\frac{3}{16}$	3 65	32	9.9	139	1 $\frac{11}{32}$	5 70	50
6.7	107	1 $\frac{3}{16}$	3 65	32	10.	140	1 $\frac{11}{32}$	5 70	50
6.8	108	1 $\frac{3}{16}$	3 65	32	10.5	140	1 $\frac{7}{16}$	6 00	53
6.9	109	1 $\frac{3}{16}$	3 65	32	11.	145	1 $\frac{7}{16}$	6 80	59
7.	110	1 $\frac{3}{16}$	3 65	32	11.5	145	1 $\frac{11}{32}$	7 20	63
7.1	111	1 $\frac{3}{16}$	3 90	35	12.	150	1 $\frac{11}{32}$	7 50	65
7.2	112	1 $\frac{5}{16}$	3 90	35	12.5	150	1 $\frac{1}{2}$	8 00	70
7.3	113	1 $\frac{5}{16}$	3 90	35	13.	155	1 $\frac{1}{2}$	10 00	85

Steel Wire Drills



No. 107

No. by Gauge.	Length, Inches.	Length of Twist, Inches.	Price Per Dozen.	Price, Each.	No. by Gauge.	Length, Inches.	Length of Twist, Inches.	Price Per Dozen.	Price, Each.
1	4	2 $\frac{3}{4}$	\$2 35	\$0 22	41	2 $\frac{1}{16}$	1 $\frac{5}{16}$	\$1 10	\$0 10
2	3 $\frac{1}{16}$	2 $\frac{5}{8}$	2 35	22	42	2 $\frac{1}{16}$	1 $\frac{1}{4}$	1 10	10
3	3 $\frac{1}{16}$	2 $\frac{5}{8}$	2 35	22	43	2 $\frac{1}{4}$	1 $\frac{3}{4}$	1 10	10
4	3 $\frac{7}{8}$	2 $\frac{3}{4}$	2 35	22	44	2 $\frac{1}{16}$	1 $\frac{1}{16}$	1 10	10
5	3 $\frac{1}{16}$	2 $\frac{1}{16}$	2 35	22	45	2 $\frac{1}{16}$	1 $\frac{1}{8}$	1 10	10
6	3 $\frac{1}{16}$	2 $\frac{1}{2}$	2 25	21	46	2 $\frac{1}{8}$	1 $\frac{1}{8}$	95	09
7	3 $\frac{3}{4}$	2 $\frac{1}{2}$	2 25	21	47	2 $\frac{1}{16}$	1 $\frac{3}{32}$	95	09
8	3 $\frac{1}{16}$	2 $\frac{3}{32}$	2 25	21	48	2 $\frac{1}{16}$	1 $\frac{1}{16}$	95	09
9	3 $\frac{1}{16}$	2 $\frac{7}{16}$	2 25	21	49	2	1	95	09
10	3 $\frac{5}{8}$	2 $\frac{3}{8}$	2 25	21	50	1 $\frac{1}{16}$	$\frac{3}{32}$	95	09
11	3 $\frac{1}{16}$	2 $\frac{3}{32}$	2 10	20	51	1 $\frac{1}{16}$	$\frac{15}{16}$	95	09
12	3 $\frac{1}{16}$	2 $\frac{1}{16}$	2 10	20	52	1 $\frac{1}{8}$	$\frac{7}{8}$	95	09
13	3 $\frac{1}{2}$	2 $\frac{3}{32}$	2 10	20	53	1 $\frac{1}{16}$	$\frac{3}{32}$	95	09
14	3 $\frac{7}{16}$	2 $\frac{1}{4}$	2 10	20	54	1 $\frac{1}{16}$	$\frac{27}{32}$	95	09
15	3 $\frac{7}{16}$	2 $\frac{7}{32}$	2 10	20	55	1 $\frac{3}{4}$	$\frac{13}{16}$	95	09
16	3 $\frac{3}{8}$	2 $\frac{1}{16}$	1 95	19	56	1 $\frac{1}{16}$	$\frac{3}{32}$	95	09
17	3 $\frac{1}{16}$	2 $\frac{5}{32}$	1 95	19	57	1 $\frac{1}{16}$	$\frac{3}{32}$	95	09
18	3 $\frac{1}{16}$	2 $\frac{1}{8}$	1 95	19	58	1 $\frac{5}{8}$	$\frac{3}{32}$	95	09
19	3 $\frac{1}{4}$	2 $\frac{3}{32}$	1 95	19	59	1 $\frac{1}{16}$	$\frac{1}{16}$	95	09
20	3 $\frac{3}{16}$	2 $\frac{1}{16}$	1 95	19	60	1 $\frac{1}{16}$	$\frac{1}{16}$	95	09
21	3 $\frac{3}{16}$	2 $\frac{1}{16}$	1 75	17	61	1 $\frac{1}{2}$	$\frac{5}{8}$	90	08
22	3 $\frac{1}{8}$	2	1 75	17	62	1 $\frac{1}{2}$	$\frac{5}{8}$	90	08
23	3 $\frac{1}{16}$	1 $\frac{3}{32}$	1 75	17	63	1 $\frac{1}{2}$	$\frac{5}{8}$	90	08
24	3 $\frac{1}{16}$	1 $\frac{1}{16}$	1 75	17	64	1 $\frac{1}{2}$	$\frac{5}{8}$	90	08
25	3	1 $\frac{3}{32}$	1 75	17	65	1 $\frac{1}{2}$	$\frac{5}{8}$	90	08
26	2 $\frac{1}{16}$	1 $\frac{7}{8}$	1 55	15	66	1 $\frac{1}{2}$	$\frac{9}{16}$	90	08
27	2 $\frac{1}{16}$	1 $\frac{3}{4}$	1 55	15	67	1 $\frac{7}{16}$	$\frac{9}{16}$	90	08
28	2 $\frac{7}{8}$	1 $\frac{1}{16}$	1 55	15	68	1 $\frac{1}{16}$	$\frac{9}{16}$	90	08
29	2 $\frac{1}{16}$	1 $\frac{3}{4}$	1 55	15	69	1 $\frac{3}{8}$	$\frac{9}{16}$	90	08
30	2 $\frac{1}{16}$	1 $\frac{3}{32}$	1 55	15	70	1 $\frac{1}{16}$	$\frac{9}{16}$	90	08
31	2 $\frac{3}{4}$	1 $\frac{1}{16}$	1 40	14	71	1 $\frac{1}{16}$	$\frac{1}{2}$	1 00	09
32	2 $\frac{1}{16}$	1 $\frac{5}{8}$	1 40	14	72	1 $\frac{1}{4}$	$\frac{7}{16}$	1 00	09
33	2 $\frac{1}{16}$	1 $\frac{5}{8}$	1 40	14	73	1 $\frac{3}{16}$	$\frac{3}{8}$	1 00	09
34	2 $\frac{5}{8}$	1 $\frac{1}{16}$	1 40	14	74	1 $\frac{1}{8}$	$\frac{1}{16}$	1 00	09
35	2 $\frac{1}{16}$	1 $\frac{1}{2}$	1 40	14	75	1 $\frac{1}{16}$	$\frac{1}{4}$	1 00	09
36	2 $\frac{1}{16}$	1 $\frac{1}{2}$	1 25	12	76	1	$\frac{1}{4}$	1 00	09
37	2 $\frac{1}{2}$	1 $\frac{7}{16}$	1 25	12	77	$\frac{1}{16}$	$\frac{7}{32}$	1 00	09
38	2 $\frac{7}{16}$	1 $\frac{3}{8}$	1 25	12	78	$\frac{7}{8}$	$\frac{7}{32}$	1 00	09
39	2 $\frac{7}{16}$	1 $\frac{3}{32}$	1 25	12	79	$\frac{1}{16}$	$\frac{3}{16}$	1 00	09
40	2 $\frac{3}{8}$	1 $\frac{1}{16}$	1 25	12	80	$\frac{3}{4}$	$\frac{3}{16}$	1 00	09

Can be furnished Straight Flute if desired.

Three and Four-Groove Drills

With Straight and Taper Shanks



Three-Groove T. S. Drill No. 102B.

Four-Groove T. S. Drill No. 102C.



Three-Groove S. S. Drill No. 104B.

Four-Groove S. S. Drill No. 104C.

Diameter Inches.	Price Each.	Length, Inches.	Shank Taper.
$\frac{1}{4}$	\$1 50	$6\frac{1}{8}$	No. 1
$\frac{5}{16}$	1 60	$6\frac{1}{4}$	No. 1
$\frac{3}{8}$	1 60	$6\frac{3}{8}$	No. 1
$\frac{7}{16}$	1 70	$6\frac{1}{2}$	No. 1
$\frac{1}{2}$	1 70	$6\frac{3}{4}$	No. 1
$\frac{9}{16}$	1 75	7	No. 1
$\frac{5}{8}$	1 80	$7\frac{1}{4}$	No. 1
$\frac{3}{4}$	1 85	$7\frac{1}{2}$	No. 1
$\frac{7}{8}$	1 90	$7\frac{3}{4}$	No. 1
1	1 95	8	No. 1
$\frac{1}{8}$	2 00	$8\frac{1}{4}$	No. 1
$\frac{1}{4}$	2 30	$8\frac{1}{2}$	No. 2
$\frac{3}{8}$	2 60	$8\frac{3}{4}$	No. 2
$\frac{1}{2}$	2 70	9	No. 2
$\frac{5}{8}$	2 75	$9\frac{1}{4}$	No. 2
$\frac{3}{4}$	2 85	$9\frac{1}{2}$	No. 2
$\frac{7}{8}$	2 90	$9\frac{3}{4}$	No. 2
1	3 00	$9\frac{7}{8}$	No. 2
$\frac{1}{8}$	3 05	10	No. 2
$\frac{1}{4}$	3 15	$10\frac{1}{4}$	No. 2
$\frac{3}{8}$	3 20	$10\frac{1}{2}$	No. 2
$\frac{1}{2}$	3 30	$10\frac{5}{8}$	No. 2
$\frac{5}{8}$	3 40	$10\frac{3}{4}$	No. 3
$\frac{3}{4}$	3 50	$10\frac{7}{8}$	No. 3
$\frac{7}{8}$	3 60	11	No. 3
1	3 70	$11\frac{1}{8}$	No. 3
$\frac{1}{8}$	3 80	$11\frac{1}{4}$	No. 3
$\frac{1}{4}$	3 90	$11\frac{1}{2}$	No. 3
$\frac{3}{8}$	4 00	$11\frac{3}{4}$	No. 3
$\frac{1}{2}$	4 25	$11\frac{7}{8}$	No. 3
$\frac{5}{8}$	4 50	12	No. 3
$\frac{3}{4}$	4 65	$12\frac{1}{8}$	No. 3
$\frac{7}{8}$	4 80	$12\frac{1}{2}$	No. 3
1	5 00	$14\frac{1}{8}$	No. 4
$\frac{1}{8}$	5 20	$14\frac{1}{4}$	No. 4
$\frac{1}{4}$	5 40	$14\frac{3}{8}$	No. 4
$\frac{3}{8}$	5 60	$14\frac{1}{2}$	No. 4
$\frac{1}{2}$	5 80	$14\frac{5}{8}$	No. 4
$\frac{5}{8}$	6 00	$14\frac{3}{4}$	No. 4

Continued on next page.

Three and Four-Groove Drills

With Straight and Taper Shanks

Continued

Dia. Inches.	Price Each.	Length, Inches.	Shank Taper.
1 $\frac{15}{32}$	\$6 20	14 $\frac{7}{8}$	No. 4
*1 $\frac{1}{2}$	6 40	15	No. 4
1 $\frac{17}{32}$	6 65	15 $\frac{1}{8}$	No. 4
1 $\frac{9}{16}$	6 90	15 $\frac{1}{4}$	No. 4
1 $\frac{19}{32}$	7 15	15 $\frac{3}{8}$	No. 4
1 $\frac{5}{8}$	7 40	15 $\frac{1}{2}$	No. 4
1 $\frac{21}{32}$	7 65	15 $\frac{5}{8}$	No. 4
1 $\frac{11}{16}$	7 90	15 $\frac{3}{4}$	No. 4
1 $\frac{23}{32}$	8 15	15 $\frac{7}{8}$	No. 4
1 $\frac{3}{4}$	8 40	16	No. 4
1 $\frac{25}{32}$	8 60	16 $\frac{1}{8}$	No. 4
1 $\frac{27}{32}$	8 80	16 $\frac{1}{4}$	No. 4
1 $\frac{29}{32}$	9 00	16 $\frac{3}{8}$	No. 4
1 $\frac{7}{8}$	9 20	16 $\frac{1}{2}$	No. 4
1 $\frac{29}{32}$	9 35	16 $\frac{1}{2}$	No. 4
1 $\frac{15}{16}$	9 50	16 $\frac{1}{2}$	No. 4
1 $\frac{31}{32}$	9 65	16 $\frac{1}{2}$	No. 4
2	9 80	16 $\frac{1}{2}$	No. 4
2 $\frac{1}{32}$	10 20	16 $\frac{1}{2}$	No. 5
2 $\frac{1}{16}$	10 60	17	No. 5
2 $\frac{3}{32}$	10 90	17	No. 5
2 $\frac{1}{8}$	11 20	17	No. 5
2 $\frac{5}{32}$	11 60	17	No. 5
2 $\frac{7}{16}$	12 00	17	No. 5
2 $\frac{7}{32}$	12 40	17 $\frac{1}{2}$	No. 5
2 $\frac{1}{4}$	12 80	17 $\frac{1}{2}$	No. 5
2 $\frac{9}{32}$	13 20	17 $\frac{1}{2}$	No. 5
2 $\frac{5}{16}$	13 60	17 $\frac{1}{2}$	No. 5
2 $\frac{11}{32}$	14 00	18	No. 5
2 $\frac{3}{8}$	14 40	18	No. 5
2 $\frac{13}{32}$	14 70	18 $\frac{1}{2}$	No. 5
2 $\frac{7}{16}$	15 00	18 $\frac{1}{2}$	No. 5
2 $\frac{15}{32}$	15 30	19	No. 5
2 $\frac{1}{2}$	15 60	19	No. 5
2 $\frac{17}{32}$	15 90	19 $\frac{1}{4}$	No. 5
2 $\frac{9}{16}$	16 20	19 $\frac{1}{4}$	No. 5
2 $\frac{19}{32}$	16 50	19 $\frac{1}{2}$	No. 5
2 $\frac{5}{8}$	16 80	19 $\frac{1}{2}$	No. 5
2 $\frac{21}{32}$	17 35	20	No. 5
2 $\frac{11}{16}$	17 90	20	No. 5
2 $\frac{23}{32}$	18 45	20 $\frac{1}{2}$	No. 5
2 $\frac{3}{4}$	19 00	20 $\frac{1}{2}$	No. 5
2 $\frac{25}{32}$	19 50	20 $\frac{1}{2}$	No. 5
2 $\frac{13}{16}$	20 00	20 $\frac{1}{2}$	No. 5
2 $\frac{27}{32}$	20 50	21	No. 5
2 $\frac{7}{8}$	21 00	21	No. 5
2 $\frac{29}{32}$	22 00	21	No. 5
2 $\frac{15}{16}$	23 00	21	No. 5
2 $\frac{31}{32}$	24 00	22	No. 5
3	25 00	22	No. 5

*Discount changes at 1 $\frac{1}{2}$ inch diameter.

Furnished in 64th sizes if ordered at price of the next larger size listed.

Two-Grooved Shank Drills

Taper Shank Lengths



No. 104D

Diameter, Inches.	Length, Inches.	Price Each.	Diameter, Inches.	Length, Inches.	Price Each.
$\frac{1}{16}$	$3\frac{5}{8}$	\$0 35	$\frac{13}{16}$	10	\$2 15
$\frac{3}{32}$	$4\frac{3}{8}$	40	$\frac{3}{16}$	$10\frac{1}{4}$	2 30
$\frac{1}{8}$	$5\frac{1}{8}$	45	$\frac{7}{8}$	$10\frac{1}{2}$	2 45
$\frac{5}{32}$	$5\frac{3}{8}$	45	$\frac{3}{8}$	$10\frac{5}{8}$	2 60
$\frac{3}{16}$	$5\frac{5}{8}$	50	$\frac{1}{2}$	$10\frac{3}{4}$	2 75
$\frac{7}{32}$	$5\frac{7}{8}$	55	$\frac{3}{4}$	$10\frac{7}{8}$	2 90
$\frac{1}{4}$	$6\frac{1}{8}$	60	1	11	3 00
$\frac{9}{32}$	$6\frac{1}{4}$	65	$1\frac{1}{32}$	$11\frac{1}{8}$	3 20
$\frac{5}{16}$	$6\frac{3}{8}$	70	$1\frac{1}{16}$	$11\frac{1}{4}$	3 40
$\frac{11}{32}$	$6\frac{1}{2}$	75	$1\frac{3}{32}$	$11\frac{1}{2}$	3 60
$\frac{3}{8}$	$6\frac{3}{4}$	80	$1\frac{1}{8}$	$11\frac{3}{4}$	3 80
$\frac{13}{32}$	7	85	$1\frac{5}{32}$	$11\frac{7}{8}$	4 00
$\frac{7}{16}$	$7\frac{1}{4}$	90	$1\frac{1}{8}$	12	4 20
$\frac{15}{32}$	$7\frac{1}{2}$	95	$1\frac{7}{32}$	$12\frac{1}{8}$	4 40
$\frac{1}{2}$	$7\frac{3}{4}$	1 00	$1\frac{1}{4}$	$12\frac{1}{2}$	4 50
$\frac{17}{32}$	8	1 10	$1\frac{3}{16}$	$14\frac{1}{8}$	4 65
$\frac{9}{16}$	$8\frac{1}{4}$	1 20	$1\frac{5}{16}$	$14\frac{1}{4}$	4 80
$\frac{19}{32}$	$8\frac{1}{2}$	1 30	$1\frac{11}{32}$	$14\frac{3}{8}$	5 00
$\frac{5}{8}$	$8\frac{3}{4}$	1 40	$1\frac{3}{8}$	$14\frac{1}{2}$	5 20
$\frac{21}{32}$	9	1 50	$1\frac{13}{32}$	$14\frac{5}{8}$	5 40
$\frac{11}{16}$	$9\frac{1}{4}$	1 60	$1\frac{7}{16}$	$14\frac{3}{4}$	5 60
$\frac{23}{32}$	$9\frac{1}{2}$	1 70	$1\frac{15}{32}$	$14\frac{7}{8}$	5 80
$\frac{3}{4}$	$9\frac{3}{4}$	1 85	* $1\frac{1}{2}$	15	6 00
$\frac{25}{32}$	$9\frac{7}{8}$	2 00	$1\frac{17}{32}$	$15\frac{1}{8}$	6 30

*Discount changes at $1\frac{1}{2}$ inch diameter.

Sixty-fourth sizes furnished at the price of the next larger size.

Drills $1\frac{23}{32}$ to 3 inches have shanks $1\frac{1}{2}$ inches diameter by 6 inches long.

Two-Grooved Shank Drills—Continued

Taper Shank Lengths



No. 104D

Diameter, Inches.	Length, Inches.	Price Each.	Diameter, Inches.	Length, Inches.	Price Each.
1 $\frac{9}{16}$	15 $\frac{1}{4}$	\$ 6 60	2 $\frac{5}{16}$	17 $\frac{1}{2}$	\$13 60
1 $\frac{11}{16}$	15 $\frac{3}{8}$	6 90	2 $\frac{11}{16}$	18	14 00
1 $\frac{5}{8}$	15 $\frac{1}{2}$	7 20	2 $\frac{3}{8}$	18	14 40
1 $\frac{3}{4}$	15 $\frac{5}{8}$	7 50	2 $\frac{1}{2}$	18 $\frac{1}{2}$	14 70
1 $\frac{7}{8}$	15 $\frac{3}{4}$	7 80	2 $\frac{7}{8}$	18 $\frac{1}{2}$	15 00
1 $\frac{15}{16}$	15 $\frac{7}{8}$	8 10	2 $\frac{15}{16}$	19	15 30
1 $\frac{3}{4}$	16	8 40	2 $\frac{1}{2}$	19	15 60
1 $\frac{13}{16}$	16 $\frac{1}{8}$	8 60	2 $\frac{1}{2}$	19 $\frac{1}{4}$	15 90
1 $\frac{11}{16}$	16 $\frac{1}{4}$	8 80	2 $\frac{9}{16}$	19 $\frac{1}{4}$	16 20
1 $\frac{9}{16}$	16 $\frac{3}{8}$	9 00	2 $\frac{1}{2}$	19 $\frac{1}{2}$	16 50
1 $\frac{7}{8}$	16 $\frac{1}{2}$	9 20	2 $\frac{5}{8}$	19 $\frac{1}{2}$	16 80
1 $\frac{13}{16}$	16 $\frac{1}{2}$	9 35	2 $\frac{3}{4}$	20	17 20
1 $\frac{11}{16}$	16 $\frac{1}{2}$	9 50	2 $\frac{11}{16}$	20	17 60
1 $\frac{9}{16}$	16 $\frac{1}{2}$	9 65	2 $\frac{3}{4}$	20 $\frac{1}{2}$	18 30
2	16 $\frac{1}{2}$	9 80	2 $\frac{3}{4}$	20 $\frac{1}{2}$	19 00
2 $\frac{1}{16}$	16 $\frac{1}{2}$	10 20	2 $\frac{1}{2}$	20 $\frac{1}{2}$	19 50
2 $\frac{1}{8}$	17	10 60	2 $\frac{1}{2}$	20 $\frac{1}{2}$	20 00
2 $\frac{3}{16}$	17	10 90	2 $\frac{1}{2}$	21	20 50
2 $\frac{1}{4}$	17	11 20	2 $\frac{1}{2}$	21	21 00
2 $\frac{5}{16}$	17	11 60	2 $\frac{1}{2}$	21	22 00
2 $\frac{3}{8}$	17	12 00	2 $\frac{1}{2}$	21	23 00
2 $\frac{7}{16}$	17 $\frac{1}{2}$	12 40	2 $\frac{1}{2}$	22	24 00
2 $\frac{1}{2}$	17 $\frac{1}{2}$	12 80	3	22	25 00
2 $\frac{9}{16}$	17 $\frac{1}{2}$	13 20			

Sixty-fourth sizes furnished at the price of the next larger size.
 Drills 1 $\frac{3}{4}$ to 3 inches have shanks 1 $\frac{1}{2}$ inches diameter by 6 inches long.

Two-Grooved Shank Drills

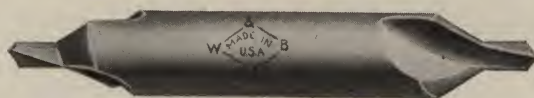
Jobbers' Length



No. 105D

Diameter Inches	Length Inches	Price per Dozen	Price Each	Diameter Inches	Length Inches	Price per Dozen	Price Each
$\frac{1}{16}$	$2\frac{1}{2}$	\$1 00	\$0 09	$\frac{13}{64}$	$4\frac{3}{8}$	\$3 90	\$0 35
$\frac{5}{64}$	$2\frac{3}{8}$	1 10	10	$\frac{1}{16}$	$4\frac{1}{2}$	4 20	37
$\frac{3}{32}$	$2\frac{3}{4}$	1 20	11	$\frac{21}{64}$	$4\frac{5}{8}$	4 50	40
$\frac{7}{64}$	$2\frac{7}{8}$	1 30	12	$\frac{11}{32}$	$4\frac{3}{4}$	4 80	42
$\frac{1}{8}$	3	1 45	13	$\frac{23}{64}$	$4\frac{7}{8}$	5 10	45
$\frac{9}{64}$	$3\frac{1}{8}$	1 60	15	$\frac{3}{8}$	5	5 40	48
$\frac{5}{32}$	$3\frac{1}{4}$	1 80	16	$\frac{25}{64}$	$5\frac{1}{8}$	5 70	50
$\frac{11}{64}$	$3\frac{3}{8}$	2 00	18	$\frac{13}{32}$	$5\frac{1}{4}$	6 00	53
$\frac{3}{16}$	$3\frac{1}{2}$	2 20	20	$\frac{27}{64}$	$5\frac{3}{8}$	6 40	55
$\frac{13}{64}$	$3\frac{5}{8}$	2 40	21	$\frac{7}{16}$	$5\frac{1}{2}$	6 80	59
$\frac{7}{32}$	$3\frac{3}{4}$	2 65	23	$\frac{29}{64}$	$5\frac{5}{8}$	7 20	63
$\frac{15}{64}$	$3\frac{7}{8}$	2 90	26	$\frac{15}{32}$	$5\frac{3}{4}$	7 50	65
$\frac{1}{4}$	4	3 15	28	$\frac{31}{64}$	$5\frac{7}{8}$	7 75	67
$\frac{17}{64}$	$4\frac{1}{8}$	3 40	30	$\frac{1}{2}$	6	8 00	70
$\frac{9}{32}$	$4\frac{1}{4}$	3 65	32				

Drill and Countersink Combined



No. 114

Centers holes absolutely perfect.

Size	Diameter of Body	Diameter of Drill	Price per Dozen
A	$\frac{3}{16}$	$\frac{3}{32}$ and $\frac{1}{8}$	\$1 50
B	$\frac{3}{16}$	$\frac{1}{8}$ and $\frac{1}{8}$	1 50
C	$\frac{3}{16}$	$\frac{3}{32}$ and $\frac{3}{32}$	1 50
D	$\frac{15}{64}$	No. 49 and No. 45	1 50
E	$\frac{13}{64}$	$\frac{1}{16}$ and No. 45	1 50
F	$\frac{7}{16}$	$\frac{5}{32}$ and $\frac{5}{32}$	3 00
G	$\frac{7}{16}$	$\frac{3}{16}$ and $\frac{3}{16}$	3 00
H	$\frac{7}{16}$	$\frac{3}{16}$ and $\frac{5}{32}$	3 00

Packed one dozen of a size in a box.

Straight Shank Machine Bits

For Wood



No. 108

Diameter, Inches.	Length, Inches.	Price, Each.	Diameter, Inches.	Length, Inches.	Price, Each.
$\frac{1}{8}$	3	\$0 20	$\frac{17}{32}$	$6\frac{1}{8}$	\$0 95
$\frac{5}{32}$	$3\frac{1}{4}$	25	$\frac{15}{16}$	$6\frac{1}{4}$	1 00
$\frac{3}{16}$	$3\frac{1}{2}$	30	$\frac{5}{8}$	$6\frac{1}{2}$	1 15
$\frac{7}{32}$	$3\frac{3}{4}$	35	$\frac{11}{16}$	7	1 35
$\frac{1}{4}$	4	40	$\frac{3}{4}$	$7\frac{1}{2}$	1 65
$\frac{9}{32}$	$4\frac{1}{4}$	45	$\frac{13}{16}$	8	1 95
$\frac{5}{16}$	$4\frac{1}{2}$	50	$\frac{1}{2}$	$8\frac{1}{2}$	2 30
$\frac{11}{32}$	$4\frac{3}{4}$	55	9	9	2 65
$\frac{3}{8}$	5	65	$\frac{15}{16}$	$9\frac{1}{2}$	3 00
$\frac{13}{32}$	$5\frac{1}{4}$	70	1	$11\frac{1}{4}$	3 60
$\frac{7}{16}$	$5\frac{1}{2}$	75	$\frac{1}{16}$	$11\frac{3}{4}$	4 00
$\frac{15}{32}$	$5\frac{3}{4}$	80	$\frac{1}{8}$	12	4 40
$\frac{1}{2}$	6	85	$\frac{1}{4}$	$12\frac{1}{2}$	4 80

Prentice Machine Bits

For Wood



No. 108 C

Diameter, Inches.	Length, Inches.	Price, Each.	Diameter, Inches.	Length, Inches.	Price, Each.
$\frac{1}{8}$	$5\frac{1}{8}$	\$0 50	$\frac{13}{32}$	$8\frac{1}{2}$	\$1 50
$\frac{5}{32}$	$5\frac{3}{8}$	50	$\frac{5}{8}$	$8\frac{3}{4}$	1 60
$\frac{3}{16}$	$5\frac{5}{8}$	60	$\frac{11}{16}$	9	1 70
$\frac{7}{32}$	$5\frac{7}{8}$	60	$\frac{1}{2}$	$9\frac{1}{4}$	1 80
$\frac{1}{4}$	$6\frac{1}{8}$	70	$\frac{23}{32}$	$9\frac{1}{2}$	1 90
$\frac{9}{32}$	$6\frac{1}{4}$	75	$\frac{3}{4}$	$9\frac{3}{4}$	2 00
$\frac{5}{16}$	$6\frac{3}{8}$	80	$\frac{25}{32}$	$9\frac{7}{8}$	2 20
$\frac{11}{32}$	$6\frac{1}{2}$	85	$\frac{13}{16}$	10	2 40
$\frac{3}{8}$	$6\frac{3}{4}$	90	$\frac{1}{2}$	$10\frac{1}{4}$	2 50
$\frac{13}{32}$	7	95	$\frac{7}{8}$	$10\frac{1}{2}$	2 60
$\frac{7}{16}$	$7\frac{1}{4}$	1 00	$\frac{29}{32}$	$10\frac{5}{8}$	2 80
$\frac{15}{32}$	$7\frac{1}{2}$	1 10	$\frac{1}{2}$	$10\frac{3}{4}$	3 00
$\frac{1}{2}$	$7\frac{3}{4}$	1 20	$\frac{31}{32}$	$10\frac{7}{8}$	3 20
$\frac{17}{32}$	8	1 30	1	11	3 40
$\frac{9}{16}$	$8\frac{1}{4}$	1 40			

Shanks $\frac{1}{2}$ by $2\frac{1}{2}$.

Furnished with shank not slabbed when so specified.

Taper Shank Machine Bits

For Wood



No. 108B.

Diameter, Inches.	Price Each.	Whole Length, Inches.	Length of Twist, Inches.	Shank Taper.
$\frac{1}{8}$	\$0 50	$4\frac{5}{8}$	$1\frac{1}{16}$	No. 1
$\frac{5}{32}$	50	$4\frac{7}{8}$	$2\frac{3}{32}$	No. 1
$\frac{3}{16}$	60	5	$2\frac{5}{16}$	No. 1
$\frac{7}{32}$	60	$5\frac{1}{4}$	$2\frac{17}{32}$	No. 1
$\frac{1}{4}$	70	$6\frac{1}{8}$	3	No. 1
$\frac{9}{32}$	75	$6\frac{1}{4}$	$2\frac{15}{16}$	No. 1
$\frac{5}{16}$	80	$6\frac{3}{8}$	$3\frac{1}{16}$	No. 1
$\frac{11}{32}$	85	$6\frac{1}{2}$	$3\frac{3}{16}$	No. 1
$\frac{3}{8}$	90	$6\frac{3}{4}$	$3\frac{7}{16}$	No. 1
$\frac{13}{32}$	95	7	$3\frac{11}{16}$	No. 1
$\frac{7}{16}$	1 00	$7\frac{1}{4}$	$3\frac{15}{16}$	No. 1
$\frac{15}{32}$	1 10	$7\frac{1}{2}$	$4\frac{3}{16}$	No. 1
$\frac{1}{2}$	1 20	$7\frac{3}{4}$	$4\frac{7}{16}$	No. 1
$\frac{17}{32}$	1 30	8	$4\frac{11}{16}$	No. 1
$\frac{9}{16}$	1 40	$8\frac{1}{4}$	$4\frac{15}{16}$	No. 1
$\frac{19}{32}$	1 50	$8\frac{1}{2}$	$5\frac{3}{16}$	No. 1
$\frac{5}{8}$	1 60	$8\frac{3}{4}$	$4\frac{15}{16}$	No. 2
$\frac{21}{32}$	1 70	9	$5\frac{3}{16}$	No. 2
$\frac{11}{16}$	1 80	$9\frac{1}{4}$	$5\frac{7}{16}$	No. 2
$\frac{23}{32}$	1 90	$9\frac{1}{2}$	$5\frac{11}{16}$	No. 2
$\frac{3}{4}$	2 00	$9\frac{3}{4}$	$5\frac{15}{16}$	No. 2
$\frac{25}{32}$	2 30	$9\frac{7}{8}$	$6\frac{1}{16}$	No. 2
$\frac{13}{16}$	2 30	10	$6\frac{3}{16}$	No. 2
$\frac{27}{32}$	2 60	$10\frac{1}{4}$	$6\frac{7}{16}$	No. 2
$\frac{7}{8}$	2 60	$10\frac{1}{2}$	$6\frac{11}{16}$	No. 2
$\frac{29}{32}$	3 00	$10\frac{5}{8}$	$6\frac{15}{16}$	No. 2
$\frac{15}{16}$	3 00	$10\frac{3}{4}$	$6\frac{1}{4}$	No. 3
$\frac{31}{32}$	3 40	$10\frac{7}{8}$	$6\frac{5}{8}$	No. 3
1	3 40	11	$6\frac{1}{2}$	No. 3
$1\frac{1}{16}$	4 10	$11\frac{1}{4}$	$6\frac{3}{4}$	No. 3
$1\frac{1}{8}$	4 10	$11\frac{3}{4}$	$7\frac{1}{4}$	No. 3
$1\frac{3}{16}$	4 80	12	$7\frac{1}{2}$	No. 3
$1\frac{1}{4}$	4 80	$12\frac{1}{2}$	8	No. 3
$1\frac{5}{16}$	5 60	$14\frac{1}{4}$	$8\frac{3}{4}$	No. 4
$1\frac{3}{8}$	5 60	$14\frac{1}{2}$	9	No. 4
$1\frac{7}{16}$	6 40	$14\frac{3}{4}$	$9\frac{1}{4}$	No. 4
$1\frac{1}{2}$	6 40	15	$9\frac{1}{2}$	No. 4

Straight-Flute Drills

(Farmer Drills.)



Straight Shank No. 104A

List prices same as on pages 222, 223 and 226.

Taper Shank No. 102A

List prices same as on pages 217 and 218.

Left-Hand Drills



Same list price as right hand drills, but subject to special discount.

Bobbin Bits



No. 108F

Specially adapted for use in the manufacture of Shovel Handles, Wheelbarrows, etc.

Single-Twist Drills



Straight Shank No. 108D

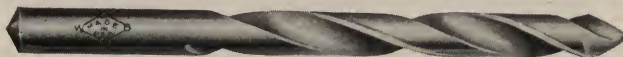
Taper Shank No. 108E

List prices same as on pages 217, 218, 222 and 223.

Our single twist drills are extensively used by wood workers. They are made with sharp cutting edges, and the grooves are made of unusual depth and width, which allows them to free themselves readily and quickly without clogging or binding.

Straight Shank Drills

For Wood



No. 113

Size.	Diameter, Inches.	Price Per Dozen.	Price Each.	Length, Inches.
2	$\frac{1}{16}$	\$1 00	\$0 09	2½
3	$\frac{3}{32}$	1 20	11	2¾
4	$\frac{1}{8}$	1 45	13	3
5	$\frac{3}{32}$	1 75	18	3¼
6	$\frac{7}{16}$	2 00	20	3½
7	$\frac{7}{32}$	2 50	22	3¾
8	$\frac{1}{4}$	3 00	25	4
9	$\frac{9}{32}$	3 50	30	4¼
10	$\frac{5}{16}$	3 50	30	4½
11	$\frac{11}{32}$	4 00	35	4¾
12	$\frac{3}{8}$	4 00	35	5
13	$\frac{13}{32}$	4 50	40	5¼
14	$\frac{7}{16}$	4 50	40	5½
15	$\frac{15}{32}$	5 00	45	5¾
16	$\frac{1}{2}$	5 00	45	6
17	$\frac{17}{32}$	5 50	50	6
18	$\frac{9}{16}$	5 50	50	6
19	$\frac{19}{32}$	6 00	55	6
20	$\frac{5}{8}$	6 00	55	6

Straight Shank Center Drills



No. 108 A

Diameter, Inches.	Length, Inches.	Price, Per Doz.	Diameter, Inches.	Length, Inches.	Price, Per Doz.
$\frac{1}{16}$	1	\$0 80	$\frac{11}{64}$	1½	\$1 70
$\frac{5}{64}$	1	90	$\frac{3}{16}$	1½	1 90
$\frac{3}{32}$	1¼	1 10	$\frac{13}{64}$	1½	2 10
$\frac{7}{64}$	1¼	1 20	$\frac{7}{32}$	1½	2 35
$\frac{1}{8}$	1¼	1 25	$\frac{15}{64}$	1½	2 60
$\frac{9}{64}$	1¼	1 35	$\frac{1}{4}$	1½	2 85
$\frac{5}{32}$	1½	1 50	$\frac{17}{64}$	1½	3 10

Can be furnished in wire and millimeter sizes to order.

Bit Stock Drills

For Metal or Wood



No 109.

Diameter, Inches.	Price Per Dozen.	Price Each.	Diameter, Inches.	Price Per Dozen.	Price Each.
$\frac{1}{16}$	\$1 50	\$0 14	$\frac{7}{16}$	\$8 80	\$0 75
$\frac{3}{32}$	1 65	16	$\frac{15}{32}$	9 60	82
$\frac{1}{8}$	2 10	20	$\frac{1}{2}$	10 30	87
$\frac{5}{32}$	2 60	24	$\frac{17}{32}$	11 00	92
$\frac{3}{16}$	3 10	29	$\frac{9}{16}$	14 35	1 20
$\frac{7}{32}$	3 60	33	$\frac{5}{8}$	16 15	1 35
$\frac{1}{4}$	4 10	38	$\frac{11}{16}$	17 95	1 50
$\frac{9}{32}$	4 70	43	$\frac{3}{4}$	19 75	1 65
$\frac{5}{16}$	5 40	48	$\frac{13}{16}$	21 55	1 80
$\frac{11}{32}$	6 30	54	$\frac{7}{8}$	23 35	1 95
$\frac{3}{8}$	7 20	62	$\frac{15}{16}$	25 75	2 15
$\frac{13}{32}$	8 00	68	1	28 15	2 35

Our bit stock drills will fit any brace in the market, and will drill steel, iron or other metals, as well as wood. They are not injured by contact with screws or nails, and will bore any kind of wood without splitting it.

For Bit Stock Drills in Sets, see page 213.

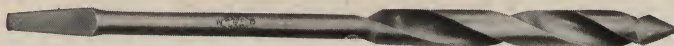
Bit Stock Countersink



No. 109A.

Diameter, Inches.	Length, Inches.	Price, Each.
$\frac{3}{8}$	$4\frac{1}{4}$	\$0 50
$\frac{1}{2}$	$4\frac{1}{4}$	60
$\frac{5}{8}$	$4\frac{1}{4}$	75
$\frac{3}{4}$	5	90
$\frac{7}{8}$	5	1 05
1	5	1 20

Wood Boring Brace Drills



No. 109 B

No.	Per Dozen.	Each.	No.	Per Dozen.	Each.	No.	Per Dozen.	Each.
2	\$1 60	\$0 15	11	\$4 00	\$0 35	20	\$6 00	\$0 55
3	1 60	15	12	4 00	35	22	6 50	60
4	1 60	15	13	4 50	40	24	7 00	65
5	1 75	18	14	4 50	40	26	7 50	70
6	2 00	20	15	5 00	45	28	8 00	75
7	2 50	22	16	5 00	45	30	9 00	85
8	3 00	25	17	5 50	50	32	10 00	95
9	3 50	30	18	5 50	50			
10	3 50	30	19	6 00	55			

The numbers indicate the sizes in 32nds.

Intermediate sizes furnished at the price of next larger number

For Wood Boring Brace Drills in Sets, see page 213.

Extra Length Wood Boring Brace Drills



No. 109 C

For Bell Hangers, Telephone and Telegraph Work

No.	12 Inch.		18 Inch.		24 Inch.		30 Inch.		36 Inch.	
	Per Doz.	Each.	Per Doz.	Each.	Per Doz.	Each.	Per Doz.	Each.	Per Doz.	Each.
6	\$ 5 00	\$ 50	\$ 7 00	\$ 70	\$ 9 00	\$ 90	\$11 00	\$1 10	\$13 00	\$1 30
8	5 00	50	7 00	70	9 00	90	11 00	1 10	13 00	1 30
10	5 50	55	7 50	75	9 50	95	12 00	1 20	13 00	1 30
12	6 00	60	8 00	80	10 00	1 00	12 00	1 20	13 00	1 30
14	7 00	70	9 00	90	11 00	1 10	13 00	1 30	14 00	1 40
16	8 00	80	10 00	1 00	12 00	1 20	14 00	1 40	15 00	1 50
18	9 00	90	11 00	1 10	13 00	1 30	15 00	1 50	16 00	1 60
20	10 00	1 00	12 00	1 20	14 00	1 40	15 00	1 50	16 00	1 60
22	11 00	1 10	13 00	1 30	15 00	1 50	16 00	1 60	17 00	1 70
24	12 00	1 20	14 00	1 40	16 00	1 60	17 00	1 70	18 00	1 80
26	13 00	1 30	15 00	1 50	17 00	1 70	18 00	1 80	18 00	1 80
28	14 00	1 40	16 00	1 60	18 00	1 80	19 00	1 90	19 00	1 90
30	15 00	1 50	17 00	1 70	19 00	1 90	20 00	2 00	20 00	2 00
32	16 00	1 60	18 00	1 80	20 00	2 00	20 00	2 00	20 00	2 00

The numbers indicate the sizes in 32nds.

Taper Square Shank Drills

Fitting Ratchets



No. 109 E

Diameter, Inches.	Length, Inches.	Price, Each.	Diameter, Inches.	Length, Inches.	Price, Each.
$\frac{1}{8}$	$4\frac{1}{4}$	\$0 90	$\frac{31}{32}$	$8\frac{1}{4}$	\$2 40
$\frac{5}{32}$	$4\frac{5}{8}$	95	1	$8\frac{1}{2}$	2 55
$\frac{3}{16}$	$4\frac{3}{4}$	95	$1\frac{1}{32}$	$8\frac{3}{4}$	2 70
$\frac{7}{32}$	$4\frac{7}{8}$	1 00	$1\frac{1}{16}$	9	2 85
$\frac{1}{4}$	5	1 00	$1\frac{3}{32}$	9	3 00
$\frac{9}{32}$	5	1 05	$1\frac{1}{8}$	9	3 10
$\frac{5}{16}$	5	1 10	$1\frac{5}{32}$	9	3 25
$\frac{11}{32}$	5	1 15	$1\frac{3}{16}$	9	3 35
$\frac{3}{8}$	6	1 20	$1\frac{7}{32}$	9	3 50
$\frac{13}{32}$	$6\frac{1}{4}$	1 25	$1\frac{1}{4}$	9	3 65
$\frac{7}{16}$	$6\frac{1}{4}$	1 25	$1\frac{9}{32}$	9	3 75
$\frac{15}{32}$	$6\frac{1}{4}$	1 30	$1\frac{5}{16}$	9	3 90
$\frac{1}{2}$	$6\frac{1}{2}$	1 30	$1\frac{11}{32}$	9	4 05
$\frac{17}{32}$	$6\frac{1}{2}$	1 35	$1\frac{3}{8}$	9	4 20
$\frac{9}{16}$	$6\frac{1}{2}$	1 35	$1\frac{13}{32}$	9	4 35
$\frac{19}{32}$	$6\frac{1}{2}$	1 40	$1\frac{7}{16}$	9	4 50
$\frac{5}{8}$	$6\frac{1}{2}$	1 40	$1\frac{15}{32}$	9	4 65
$\frac{21}{32}$	$6\frac{1}{2}$	1 45	$1\frac{1}{2}$	9	4 80
$\frac{11}{16}$	$6\frac{1}{2}$	1 45	$1\frac{9}{16}$	9	5 10
$\frac{23}{32}$	$6\frac{1}{2}$	1 50	$1\frac{5}{8}$	9	5 40
$\frac{3}{4}$	$6\frac{1}{2}$	1 55	$1\frac{11}{16}$	9	5 75
$\frac{25}{32}$	$6\frac{1}{2}$	1 65	$1\frac{3}{4}$	9	6 10
$\frac{13}{16}$	7	1 75	$1\frac{13}{16}$	9	6 50
$\frac{27}{32}$	7	1 90	$1\frac{7}{8}$	9	6 90
$\frac{7}{8}$	$7\frac{1}{2}$	2 05	$1\frac{15}{16}$	9	7 30
$\frac{29}{32}$	$7\frac{3}{4}$	2 20	2	9	7 75
$\frac{15}{16}$	8	2 30			

These drills will be furnished with Shank A. $\frac{5}{8}$ -inch by $\frac{3}{8}$ -inch, $1\frac{1}{2}$ inches long or Shank B. $\frac{3}{4}$ -inch by $\frac{1}{2}$ -inch, $1\frac{3}{4}$ inches long. Unless size of shank is stated, we will send drills with Shank A.

Coe's Drills

No. 110

Fitting Coe's Blacksmiths' Drill Press and Prentice's
Drill Press No. 3



Style No. 1



Style No. 2

Diameter, Inches.	Length, Inches.	Price, Each.	Diameter, Inches.	Length, Inches.	Price, Each.
$\frac{1}{8}$	$4\frac{7}{8}$	\$0 55	$\frac{3}{32}$	6	\$1 70
$\frac{5}{32}$	$5\frac{1}{8}$	58	1	6	1 80
$\frac{3}{16}$	$5\frac{3}{8}$	60	$1\frac{1}{32}$	6	1 90
$\frac{7}{32}$	$5\frac{5}{8}$	65	$1\frac{1}{16}$	6	2 00
$\frac{1}{4}$	6	70	$1\frac{3}{32}$	6	2 10
$\frac{9}{32}$	6	73	$1\frac{1}{8}$	6	2 20
$\frac{5}{16}$	6	75	$1\frac{3}{16}$	6	2 25
$\frac{11}{32}$	6	80	$1\frac{7}{16}$	6	2 30
$\frac{3}{8}$	6	85	$1\frac{1}{2}$	6	2 35
$\frac{13}{32}$	6	88	$1\frac{5}{8}$	6	2 40
$\frac{7}{16}$	6	90	$1\frac{3}{4}$	6	2 50
$\frac{15}{32}$	6	93	$1\frac{7}{8}$	6	2 60
$\frac{1}{2}$	6	95	$1\frac{1}{2}$	6	2 70
$\frac{17}{32}$	6	98	$1\frac{3}{8}$	6	2 80
$\frac{9}{16}$	6	1 00	$1\frac{1}{2}$	6	2 90
$\frac{19}{32}$	6	1 03	$1\frac{1}{4}$	6	3 00
$\frac{5}{8}$	6	1 05	$1\frac{3}{8}$	6	3 10
$\frac{21}{32}$	6	1 10	$1\frac{1}{2}$	6	3 20
$\frac{11}{16}$	6	1 15	$1\frac{3}{4}$	6	3 40
$\frac{23}{32}$	6	1 20	$1\frac{7}{8}$	6	3 60
$\frac{3}{4}$	6	1 25	$1\frac{1}{2}$	6	3 80
$\frac{25}{32}$	6	1 30	$1\frac{3}{4}$	6	4 05
$\frac{13}{16}$	6	1 35	$1\frac{1}{2}$	6	4 30
$\frac{27}{32}$	6	1 40	$1\frac{7}{8}$	6	4 50
$\frac{7}{8}$	6	1 45	$1\frac{15}{16}$	6	4 75
$\frac{29}{32}$	6	1 55	2	6	5 00
$\frac{15}{16}$	6	1 60	.....	.....	.....

*Discount changes at $1\frac{1}{2}$ inch diameter.

Shanks on these drills are $2\frac{1}{4}$ inches long, and $\frac{1}{4}$ inch (.647 exactly) diameter.
Style No. 2 always furnished unless otherwise ordered.

Prentice Drills

Or Taper Length Blacksmiths' Drills.

No. 111



Style No. 1



Style No. 2

Diameter, Inches.	Length, Inches.	Price, Each.	Diameter, Inches.	Length, Inches.	Price, Each.
$\frac{1}{8}$	$5\frac{1}{8}$	\$0 45	$\frac{37}{32}$	$10\frac{1}{4}$	\$2 30
$\frac{5}{32}$	$5\frac{3}{8}$	45	$\frac{7}{8}$	$10\frac{1}{2}$	2 45
$\frac{3}{16}$	$5\frac{5}{8}$	50	$\frac{29}{32}$	$10\frac{5}{8}$	2 60
$\frac{7}{32}$	$5\frac{7}{8}$	55	$\frac{15}{16}$	$10\frac{3}{4}$	2 75
$\frac{1}{4}$	$6\frac{1}{8}$	60	$\frac{31}{32}$	$10\frac{7}{8}$	2 90
$\frac{9}{32}$	$6\frac{1}{4}$	65	1	11	3 00
$\frac{5}{16}$	$6\frac{3}{8}$	70	$1\frac{1}{32}$	$11\frac{1}{8}$	3 20
$\frac{11}{32}$	$6\frac{1}{2}$	75	$1\frac{1}{16}$	$11\frac{1}{4}$	3 40
$\frac{3}{8}$	$6\frac{3}{4}$	80	$1\frac{3}{32}$	$11\frac{1}{2}$	3 60
$\frac{13}{32}$	7	85	$1\frac{1}{8}$	$11\frac{3}{4}$	3 80
$\frac{7}{16}$	$7\frac{1}{4}$	90	$1\frac{5}{32}$	$11\frac{7}{8}$	4 00
$\frac{15}{32}$	$7\frac{1}{2}$	95	$1\frac{7}{16}$	12	4 20
$\frac{1}{2}$	$7\frac{3}{4}$	1 00	$1\frac{7}{32}$	$12\frac{1}{8}$	4 40
$\frac{17}{32}$	8	1 10	$1\frac{1}{4}$	$12\frac{1}{4}$	4 50
$\frac{9}{16}$	$8\frac{1}{4}$	1 20	$1\frac{9}{32}$	$12\frac{1}{2}$	4 65
$\frac{19}{32}$	$8\frac{1}{2}$	1 30	$1\frac{1}{8}$	$12\frac{1}{2}$	4 80
$\frac{5}{8}$	$8\frac{3}{4}$	1 40	$1\frac{11}{32}$	$12\frac{3}{4}$	5 00
$\frac{21}{32}$	9	1 50	$1\frac{3}{8}$	$12\frac{3}{4}$	5 20
$\frac{11}{16}$	$9\frac{1}{4}$	1 60	$1\frac{13}{32}$	$12\frac{1}{2}$	5 40
$\frac{23}{32}$	$9\frac{1}{2}$	1 70	$1\frac{7}{16}$	$12\frac{1}{2}$	5 60
$\frac{3}{4}$	$9\frac{3}{4}$	1 85	$1\frac{15}{32}$	$12\frac{1}{2}$	5 80
$\frac{25}{32}$	$9\frac{7}{8}$	2 00	$1\frac{1}{2}$	$12\frac{1}{2}$	6 00
$\frac{13}{16}$	10	2 15			

These drills have shanks $2\frac{1}{2}$ inches long and $\frac{1}{2}$ inch diameter; twist same length as on S. S. Drills on pages 222 and 223.

Style No. 2 always furnished unless otherwise ordered.

Silver and Deming Drills

Or Short Length Blacksmiths' Drills

No. 112



Style No. 1



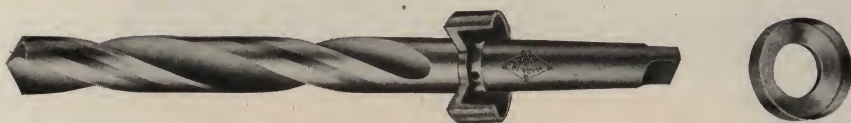
Style No. 2

Diameter, Inches.	Length, Inches.	Price, Each.	Diameter, Inches.	Length, Inches.	Price, Each.
$\frac{1}{8}$	$4\frac{7}{8}$	\$0 45	$\frac{3}{16}$	6	\$1 40
$\frac{5}{32}$	$5\frac{1}{8}$	48	$\frac{7}{8}$	6	1 45
$\frac{3}{16}$	$5\frac{3}{8}$	50	$\frac{3}{8}$	6	1 50
$\frac{7}{32}$	$5\frac{5}{8}$	55	$\frac{1}{2}$	6	1 60
$\frac{1}{4}$	6	60	$\frac{5}{8}$	6	1 70
$\frac{9}{32}$	6	65	1	6	1 80
$\frac{5}{16}$	6	70	$1\frac{1}{32}$	6	1 90
$\frac{11}{32}$	6	73	$1\frac{1}{16}$	6	2 00
$\frac{3}{8}$	6	75	$1\frac{3}{32}$	6	2 10
$\frac{13}{32}$	6	78	$1\frac{1}{8}$	6	2 20
$\frac{7}{16}$	6	80	$1\frac{5}{32}$	6	2 25
$\frac{15}{32}$	6	83	$1\frac{3}{16}$	6	2 30
$\frac{1}{2}$	6	85	$1\frac{7}{32}$	6	2 35
$\frac{17}{32}$	6	88	$1\frac{1}{4}$	6	2 40
$\frac{9}{16}$	6	90	$1\frac{9}{32}$	6	2 50
$\frac{19}{32}$	6	95	$1\frac{5}{16}$	6	2 60
$\frac{5}{8}$	6	1 05	$1\frac{11}{32}$	6	2 70
$\frac{21}{32}$	6	1 10	$1\frac{3}{8}$	6	2 80
$\frac{11}{16}$	6	1 15	$1\frac{13}{32}$	6	2 90
$\frac{23}{32}$	6	1 20	$1\frac{7}{16}$	6	3 00
$\frac{3}{4}$	6	1 25	$1\frac{15}{32}$	6	3 10
$\frac{25}{32}$	6	1 30	$1\frac{1}{2}$	6	3 20
$\frac{13}{16}$	6	1 35			

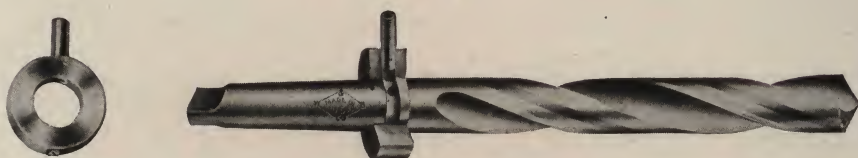
The above drills have shanks $2\frac{1}{4}$ inches long and $\frac{1}{2}$ inch diameter.
Style No. 2 always furnished unless otherwise ordered.

"W. & B." Universal Self-Oiling Drills

Patented April 13, 1897



Style "A"



Style "B"

Diameter, Inches.	Length, Inches.	Price, Each.	Diameter, Inches.	Length, Inches.	Price, Each.
$\frac{1}{2}$	$7\frac{3}{4}$	\$3 50	$1\frac{1}{32}$	$11\frac{1}{8}$	\$7 50
$\frac{17}{32}$	8	3 70	$1\frac{1}{16}$	$11\frac{1}{4}$	7 75
$\frac{9}{16}$	$8\frac{1}{4}$	3 90	$1\frac{3}{32}$	$11\frac{1}{2}$	8 00
$\frac{19}{32}$	$8\frac{1}{2}$	4 10	$1\frac{1}{8}$	$11\frac{3}{4}$	8 25
$\frac{5}{8}$	$8\frac{3}{4}$	4 30	$1\frac{5}{32}$	$11\frac{7}{8}$	8 50
$\frac{21}{32}$	9	4 50	$1\frac{3}{16}$	12	8 75
$\frac{11}{16}$	$9\frac{1}{4}$	4 75	$1\frac{7}{32}$	$12\frac{1}{8}$	9 00
$\frac{23}{32}$	$9\frac{1}{2}$	5 00	$1\frac{1}{4}$	$12\frac{1}{2}$	9 25
$\frac{3}{4}$	$9\frac{3}{4}$	5 25	$1\frac{9}{32}$	$14\frac{1}{8}$	9 50
$\frac{25}{32}$	$9\frac{7}{8}$	5 50	$1\frac{5}{16}$	$14\frac{1}{4}$	9 75
$\frac{13}{16}$	10	5 75	$1\frac{11}{32}$	$14\frac{3}{8}$	10 00
$\frac{27}{32}$	$10\frac{1}{4}$	6 00	$1\frac{3}{8}$	$14\frac{1}{2}$	10 50
$\frac{7}{8}$	$10\frac{1}{2}$	6 25	$1\frac{13}{32}$	$14\frac{5}{8}$	11 00
$\frac{29}{32}$	$10\frac{5}{8}$	6 50	$1\frac{7}{16}$	$14\frac{3}{4}$	11 50
$\frac{15}{16}$	$10\frac{3}{4}$	6 75	$1\frac{15}{32}$	$14\frac{7}{8}$	12 00
$\frac{31}{32}$	$10\frac{7}{8}$	7 00	$1\frac{1}{2}$	15	12 50
1	11	7 25			

STYLE A.—This represents the only oil-groove drill made which can be used in any vertical drill press without making a change. The oil or drilling compound, being delivered into the cup by means of a can or a tube, will at once find its way to the cutting edge of the drill, and keep it perfectly lubricated.

STYLE B.—This type of oil-grooved drill can be used either in a horizontal boring machine or in a vertical drill press. No change in the machine is necessary, except to provide a stop for the short tube leading to the collar, to keep it from revolving with the drill. The oil is conducted to the tube, either from an elevated reservoir or pump, and is forced to the point of the drill, flooding it, and assisting it in the removal of the chips.

Furnished with either Straight or Taper Shanks, any length desired.

Larger sizes made to order.

Self-Oiling Drills

With Straight Shanks



Style C

Diameter, Inches.	Length, Inches.	Price, Each.	Diameter, Inches.	Length, Inches.	Price, Each.
$\frac{1}{2}$	9	\$2 30	$\frac{1}{2}$	12	\$2 90
$\frac{5}{16}$	9	2 40	$\frac{17}{32}$	12	3 00
$\frac{9}{16}$	9	2 50	$\frac{9}{16}$	12	3 10
$\frac{11}{32}$	9	2 60	$\frac{13}{32}$	12	3 20
$\frac{5}{8}$	9	2 70	$\frac{5}{8}$	12	3 30
$\frac{31}{64}$	9	2 80	$\frac{31}{64}$	12	3 40
$\frac{11}{16}$	9	2 90	$\frac{11}{16}$	12	3 50
$\frac{43}{64}$	9	3 00	$\frac{23}{32}$	12	3 60
$\frac{3}{4}$	9	3 10	$\frac{3}{4}$	12	3 70
$\frac{25}{32}$	9	3 20	$\frac{25}{32}$	12	3 80
$\frac{13}{16}$	9	3 30	$\frac{13}{16}$	12	3 90
$\frac{27}{32}$	9	3 40	$\frac{27}{32}$	12	4 00
$\frac{7}{8}$	9	3 50	$\frac{7}{8}$	12	4 10
$\frac{29}{32}$	9	3 60	$\frac{29}{32}$	12	4 25
$\frac{15}{16}$	9	3 75	$\frac{15}{16}$	12	4 45
$\frac{31}{32}$	9	3 90	$\frac{31}{32}$	12	4 65
1	9	4 10	1	12	4 85
$1 \frac{1}{32}$	9	4 30	$1 \frac{1}{32}$	12	5 05
$1 \frac{1}{16}$	9	4 45	$1 \frac{1}{16}$	12	5 25
$1 \frac{3}{32}$	9	4 60	$1 \frac{3}{32}$	12	5 50
$1 \frac{1}{8}$	9	4 75	$1 \frac{1}{8}$	12	5 75
$1 \frac{5}{32}$	9	4 95	$1 \frac{5}{32}$	12	6 00
$1 \frac{3}{16}$	9	5 15	$1 \frac{3}{16}$	12	6 25
$1 \frac{7}{32}$	9	5 35	$1 \frac{7}{32}$	12	6 50
$1 \frac{1}{4}$	9	5 65	$1 \frac{1}{4}$	12	6 75
$1 \frac{9}{32}$	9	5 95	$1 \frac{9}{32}$	12	7 00
$1 \frac{5}{16}$	9	6 25	$1 \frac{5}{16}$	12	7 25
$1 \frac{11}{32}$	9	6 55	$1 \frac{11}{32}$	12	7 50
$1 \frac{3}{8}$	9	6 85	$1 \frac{3}{8}$	12	8 00
$1 \frac{13}{32}$	9	7 15	$1 \frac{13}{32}$	12	8 50
$1 \frac{7}{16}$	9	7 50	$1 \frac{7}{16}$	12	9 00
$1 \frac{15}{32}$	9	7 85	$1 \frac{15}{32}$	12	9 50
$1 \frac{1}{2}$	9	8 25	$1 \frac{1}{2}$	12	10 00

These Drills are specially adapted for use in screw machines and turret lathes, and can be furnished any length required.

Length over all must be specified when ordering.

Self-Oiling Drills

With Straight Shanks



Style D

Shanks 1½x3 inches. For Screw or Chucking Machines.

DIAMETER.		PRICE EACH.		
		Length, 8½ Inches.	Length, 10½ Inches	Length, 13 Inches.
Inches.	Inches.	Length of Twist 4½ Inches.	Length of Twist 6½ Inches.	Length of Twist 9 Inches.
.31	1/2	\$5 80	\$6 80	\$7 80
.33	1/2	5 80	6 80	7 80
.35	1/2	5 80	6 70	7 70
.37	1/2	5 70	6 70	7 70
.39	1/2	5 70	6 70	7 60
.41	1/2	5 70	6 60	7 60
.43	1/2	5 60	6 60	7 50
.45	1/2	5 60	6 50	7 50
.47	1/2	5 60	6 50	7 40
.49	1/2	5 70	6 60	7 40
.51	1/2	5 70	6 60	7 50
.53	1/2	5 80	6 70	7 50
.55	1/2	5 80	6 70	7 60
.57	1/2	5 90	6 80	7 60
.59	1/2	5 90	6 80	7 70
.61	1/2	6 00	6 90	7 80
.63	1	6 00	6 90	7 90
.64	1	6 10	7 00	8 00
.65	1	6 20	7 10	8 20
.66	1	6 30	7 20	8 40
.67	1	6 40	7 40	8 50
.68	1	6 50	7 50	8 60
.69	1	6 60	7 60	8 80
.70	1	6 70	7 80	8 90
.71	1	6 80	7 90	9 00
.72	1	7 10	8 40	9 40
.73	1	7 50	8 70	9 80
.74	1	7 80	9 20	10 20
.75	1	8 20	9 60	10 60
.76	1	8 60	9 90	11 00
.77	1	9 00	10 20	11 40
.78	1	9 20	10 50	11 80
.79	1	9 50	10 80	12 20

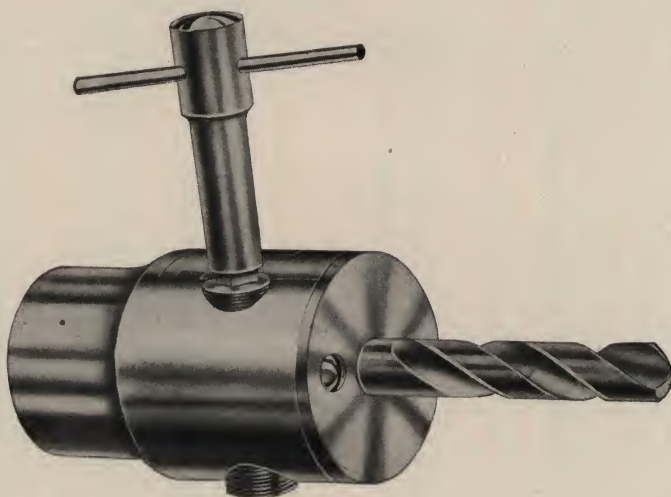
Length over all must be specified when ordering.

Drill Chucks



Unless otherwise ordered we send $\frac{1}{2}$ inch shank. Each chuck is packed in a strong paper box.

Number.	Capacity, Inches.	Straight Shank $\frac{1}{2}$ in. or $\frac{1}{4}$ in.	Shank Taper No. 1 or No. 2.
14	0 to $\frac{5}{8}$	\$1 50	\$2 00
15	0 to $\frac{1}{4}$	2 00	2 50
16	0 to $\frac{1}{2}$	4 00	4 50



Number.	Diameter, Inches.	Capacity, Inches.	Price Each.
000	$1\frac{1}{4}$	0 to $\frac{1}{4}$	\$7 00
00	$1\frac{5}{8}$	0 to $\frac{3}{8}$	7 50
100	$2\frac{1}{4}$	0 to $\frac{1}{2}$	8 00
101	$2\frac{3}{4}$	0 to $\frac{3}{4}$	9 00
102	$3\frac{1}{2}$	0 to 1	10 00

Hand Reamers

Jobbers' Set



No. 115

Diameter. Inches.	Price, Each.	Length. Inches.	Length of Flute, Inches.	Diameter, Inches.	Price, Each.	Length Inches.	Length of Flute, Inches.
$\frac{1}{8}$	\$1 00	3	$1\frac{1}{2}$	$1\frac{11}{32}$	\$5 40	$12\frac{17}{32}$	$6\frac{17}{32}$
$\frac{5}{32}$	1 10	$3\frac{1}{4}$	$1\frac{5}{8}$	$1\frac{13}{32}$	5 60	$12\frac{5}{8}$	$6\frac{5}{8}$
$\frac{3}{16}$	1 20	$3\frac{1}{2}$	$1\frac{3}{4}$	$1\frac{13}{32}$	5 80	$12\frac{33}{32}$	$6\frac{33}{32}$
$\frac{7}{32}$	1 30	$3\frac{3}{4}$	$1\frac{7}{8}$	$1\frac{15}{16}$	6 00	$12\frac{13}{16}$	$6\frac{13}{16}$
$\frac{1}{4}$	1 40	4	2	$1\frac{15}{16}$	6 20	$12\frac{29}{32}$	$6\frac{29}{32}$
$\frac{9}{32}$	1 45	$4\frac{1}{4}$	$2\frac{1}{8}$	$1\frac{1}{2}$	6 40	13	$6\frac{1}{2}$
$\frac{5}{16}$	1 50	$4\frac{1}{2}$	$2\frac{1}{4}$	$1\frac{1}{2}$	6 60	13	$6\frac{1}{2}$
$\frac{11}{32}$	1 55	$4\frac{3}{4}$	$2\frac{3}{8}$	$1\frac{9}{16}$	6 80	13	$6\frac{1}{2}$
$\frac{3}{8}$	1 60	5	$2\frac{1}{2}$	$1\frac{13}{16}$	7 00	13	$6\frac{1}{2}$
$\frac{13}{32}$	1 70	$5\frac{1}{4}$	$2\frac{5}{8}$	$1\frac{5}{8}$	7 20	13	$6\frac{1}{2}$
$\frac{7}{16}$	1 75	$5\frac{1}{2}$	$2\frac{3}{4}$	$1\frac{3}{4}$	7 40	$13\frac{1}{2}$	$6\frac{3}{4}$
$\frac{15}{32}$	1 85	$5\frac{3}{4}$	$2\frac{7}{8}$	$1\frac{11}{16}$	7 60	$13\frac{1}{2}$	$6\frac{3}{4}$
$\frac{1}{2}$	1 90	6	3	$1\frac{3}{4}$	7 80	$13\frac{1}{2}$	$6\frac{3}{4}$
$\frac{17}{32}$	1 95	$6\frac{1}{4}$	$3\frac{1}{8}$	$1\frac{3}{4}$	8 00	$13\frac{1}{2}$	$6\frac{3}{4}$
$\frac{9}{16}$	2 00	$6\frac{1}{2}$	$3\frac{1}{4}$	$1\frac{33}{32}$	8 20	$13\frac{1}{2}$	$6\frac{3}{4}$
$\frac{19}{32}$	2 10	$6\frac{3}{4}$	$3\frac{3}{8}$	$1\frac{13}{16}$	8 40	$13\frac{1}{2}$	$6\frac{3}{4}$
$\frac{5}{8}$	2 20	7	$3\frac{1}{2}$	$1\frac{3}{4}$	8 60	$13\frac{1}{2}$	$6\frac{3}{4}$
$\frac{21}{32}$	2 30	$7\frac{1}{4}$	$3\frac{3}{4}$	$1\frac{7}{8}$	8 80	14	7
$\frac{11}{16}$	2 40	$7\frac{1}{2}$	$3\frac{7}{8}$	$1\frac{39}{32}$	9 00	14	7
$\frac{23}{32}$	2 50	$8\frac{1}{8}$	$4\frac{1}{16}$	$1\frac{15}{16}$	9 20	14	7
$\frac{3}{4}$	2 60	$8\frac{3}{8}$	$4\frac{3}{16}$	$1\frac{31}{32}$	9 40	14	7
$\frac{25}{32}$	2 70	$8\frac{1}{2}$	$4\frac{1}{2}$	2	9 60	14	7
$\frac{13}{16}$	2 80	$9\frac{1}{8}$	$4\frac{1}{2}$	$2\frac{1}{16}$	10 00	$14\frac{1}{2}$	$7\frac{1}{4}$
$\frac{27}{32}$	2 95	$9\frac{3}{8}$	$4\frac{11}{16}$	$2\frac{1}{8}$	10 40	$14\frac{1}{2}$	$7\frac{1}{4}$
$\frac{7}{8}$	3 10	$9\frac{1}{2}$	$4\frac{3}{4}$	$2\frac{1}{4}$	10 80	15	$7\frac{1}{2}$
$\frac{29}{32}$	3 25	$10\frac{3}{32}$	$5\frac{3}{64}$	$2\frac{1}{4}$	11 30	15	$7\frac{1}{2}$
$\frac{15}{16}$	3 40	$10\frac{1}{4}$	$5\frac{1}{8}$	$2\frac{5}{16}$	11 80	15	$7\frac{1}{2}$
$\frac{31}{32}$	3 55	$10\frac{1}{2}$	$5\frac{1}{4}$	$2\frac{3}{8}$	12 30	15	$7\frac{1}{2}$
1	3 70	$10\frac{7}{8}$	$5\frac{1}{2}$	$2\frac{1}{2}$	12 80	$15\frac{1}{2}$	$7\frac{3}{4}$
$\frac{1}{32}$	3 85	$11\frac{1}{16}$	$5\frac{3}{32}$	$2\frac{1}{2}$	13 40	$15\frac{1}{2}$	$7\frac{3}{4}$
$\frac{1}{16}$	4 00	$11\frac{1}{4}$	$5\frac{5}{8}$	$2\frac{1}{2}$	14 00	$15\frac{1}{2}$	$7\frac{3}{4}$
$\frac{3}{32}$	4 15	$11\frac{7}{16}$	$5\frac{3}{4}$	$2\frac{1}{2}$	14 60	16	8
$\frac{1}{8}$	4 30	$11\frac{5}{8}$	$5\frac{1}{2}$	$2\frac{1}{2}$	15 40	16	8
$\frac{5}{32}$	4 45	$11\frac{1}{2}$	$5\frac{1}{2}$	$2\frac{1}{2}$	16 20	16	8
$\frac{3}{16}$	4 60	12	6	$2\frac{1}{2}$	17 00	$16\frac{1}{2}$	$8\frac{1}{4}$
$\frac{7}{16}$	4 75	$12\frac{1}{8}$	$6\frac{1}{16}$	$2\frac{1}{2}$	17 80	$16\frac{1}{2}$	$8\frac{1}{4}$
$\frac{1}{2}$	4 90	$12\frac{1}{4}$	$6\frac{1}{8}$	$2\frac{1}{2}$	18 60	$16\frac{1}{2}$	$8\frac{1}{4}$
$\frac{9}{32}$	5 05	$12\frac{3}{4}$	$6\frac{1}{4}$	3	19 40	$16\frac{1}{2}$	$8\frac{1}{4}$
$\frac{1}{16}$	5 20	$12\frac{1}{2}$	$6\frac{1}{2}$				

Hand Reamers with Threaded Ends (Self Feeding)

Jobbers' Set



No. 122

Diameter Inches.	Price Each.	Length, Inches.	Length of Flute, Ins.	Diameter Inches.	Price Each	Length, Inches.	Length of Flute, Ins.
$\frac{1}{8}$	\$1 00	3	$1\frac{1}{2}$	$1\frac{11}{32}$	\$5 40	$12\frac{17}{32}$	$6\frac{17}{32}$
$\frac{3}{32}$	1 10	$3\frac{1}{4}$	$1\frac{5}{8}$	$1\frac{13}{32}$	5 60	$12\frac{5}{8}$	$6\frac{15}{16}$
$\frac{7}{16}$	1 20	$3\frac{1}{2}$	$1\frac{3}{4}$	$1\frac{15}{32}$	5 80	$12\frac{33}{32}$	$6\frac{33}{32}$
$\frac{1}{4}$	1 30	$3\frac{3}{4}$	$1\frac{7}{8}$	$1\frac{17}{32}$	6 00	$12\frac{11}{16}$	$6\frac{11}{16}$
$\frac{9}{32}$	1 40	4	2	$1\frac{19}{32}$	6 20	$12\frac{29}{32}$	$6\frac{29}{32}$
$\frac{11}{16}$	1 45	$4\frac{1}{4}$	$2\frac{1}{8}$	$1\frac{1}{2}$	6 40	13	$6\frac{1}{2}$
$\frac{13}{16}$	1 50	$4\frac{1}{2}$	$2\frac{1}{4}$	$1\frac{13}{16}$	6 60	13	$6\frac{1}{2}$
$\frac{3}{8}$	1 55	$4\frac{3}{4}$	$2\frac{3}{8}$	$1\frac{15}{16}$	6 80	13	$6\frac{1}{2}$
$\frac{13}{16}$	1 60	5	$2\frac{1}{2}$	$1\frac{31}{32}$	7 00	13	$6\frac{1}{2}$
$\frac{15}{16}$	1 70	$5\frac{1}{4}$	$2\frac{5}{8}$	$1\frac{1}{2}$	7 20	13	$6\frac{1}{2}$
$\frac{17}{16}$	1 75	$5\frac{1}{2}$	$2\frac{3}{4}$	$1\frac{33}{32}$	7 40	$13\frac{1}{2}$	$6\frac{3}{4}$
$\frac{19}{16}$	1 85	$5\frac{3}{4}$	$2\frac{7}{8}$	$1\frac{11}{8}$	7 60	$13\frac{1}{2}$	$6\frac{3}{4}$
$\frac{1}{2}$	1 90	6	3	$1\frac{23}{32}$	7 80	$13\frac{1}{2}$	$6\frac{3}{4}$
$\frac{17}{32}$	1 95	$6\frac{1}{4}$	$3\frac{1}{8}$	$1\frac{25}{32}$	8 00	$13\frac{1}{2}$	$6\frac{3}{4}$
$\frac{19}{32}$	2 00	$6\frac{1}{2}$	$3\frac{1}{4}$	$1\frac{27}{32}$	8 20	$13\frac{1}{2}$	$6\frac{3}{4}$
$\frac{21}{32}$	2 10	$6\frac{3}{4}$	$3\frac{3}{8}$	$1\frac{29}{32}$	8 40	$13\frac{1}{2}$	$6\frac{3}{4}$
$\frac{23}{32}$	2 20	7	$3\frac{1}{2}$	$1\frac{31}{32}$	8 60	$13\frac{1}{2}$	$6\frac{3}{4}$
$\frac{25}{32}$	2 30	$7\frac{1}{4}$	$3\frac{3}{4}$	$1\frac{1}{8}$	8 80	14	7
$\frac{27}{32}$	2 40	$7\frac{1}{2}$	$3\frac{1}{2}$	$1\frac{3}{16}$	9 00	14	7
$\frac{29}{32}$	2 50	$8\frac{1}{8}$	$4\frac{1}{16}$	$1\frac{5}{16}$	9 20	14	7
$\frac{31}{32}$	2 60	$8\frac{3}{8}$	$4\frac{1}{8}$	$1\frac{7}{16}$	9 40	14	7
$\frac{1}{2}$	2 70	$8\frac{1}{2}$	$4\frac{1}{4}$	2	9 60	14	7
$\frac{1}{4}$	2 80	$9\frac{1}{16}$	$4\frac{3}{16}$	$2\frac{1}{16}$	10 00	$14\frac{1}{2}$	$7\frac{1}{4}$
$\frac{3}{8}$	2 95	$9\frac{3}{8}$	$4\frac{1}{2}$	$2\frac{3}{8}$	10 40	$14\frac{1}{2}$	$7\frac{1}{4}$
$\frac{1}{2}$	3 10	$9\frac{1}{2}$	$4\frac{3}{4}$	$2\frac{1}{2}$	10 80	15	$7\frac{1}{2}$
$\frac{3}{4}$	3 25	$10\frac{3}{32}$	$5\frac{3}{64}$	$2\frac{1}{4}$	11 30	15	$7\frac{1}{2}$
$\frac{1}{2}$	3 40	$10\frac{1}{4}$	$5\frac{1}{8}$	$2\frac{1}{8}$	11 80	15	$7\frac{1}{2}$
$\frac{3}{4}$	3 55	$10\frac{11}{16}$	$5\frac{1}{2}$	$2\frac{3}{8}$	12 30	15	$7\frac{1}{2}$
$\frac{1}{2}$	3 70	$10\frac{7}{8}$	$5\frac{7}{16}$	$2\frac{1}{2}$	12 80	$15\frac{1}{2}$	$7\frac{3}{4}$
$\frac{3}{4}$	3 85	11	$5\frac{1}{2}$	$2\frac{1}{2}$	13 40	$15\frac{1}{2}$	$7\frac{3}{4}$
$\frac{1}{2}$	4 00	$11\frac{1}{4}$	$5\frac{5}{8}$	$2\frac{3}{4}$	14 00	$15\frac{1}{2}$	$7\frac{3}{4}$
$\frac{3}{4}$	4 15	$11\frac{1}{8}$	$5\frac{3}{4}$	$2\frac{7}{8}$	14 60	16	8
$\frac{1}{2}$	4 30	$11\frac{3}{8}$	$5\frac{13}{16}$	$2\frac{1}{2}$	15 40	16	8
$\frac{3}{4}$	4 45	$11\frac{1}{2}$	$5\frac{7}{8}$	$2\frac{3}{4}$	16 20	16	8
$\frac{1}{2}$	4 60	12	6	$2\frac{1}{2}$	17 00	$16\frac{1}{2}$	$8\frac{1}{4}$
$\frac{3}{4}$	4 75	$12\frac{1}{8}$	$6\frac{1}{16}$	$2\frac{1}{2}$	17 80	$16\frac{1}{2}$	$8\frac{1}{4}$
$\frac{1}{2}$	4 90	$12\frac{1}{4}$	$6\frac{1}{8}$	$2\frac{1}{2}$	18 60	$16\frac{1}{2}$	$8\frac{1}{4}$
$\frac{3}{4}$	5 05	$12\frac{1}{2}$	$6\frac{3}{4}$	3	19 40	$16\frac{1}{2}$	$8\frac{1}{4}$
$\frac{1}{2}$	5 20	$12\frac{3}{4}$	$6\frac{7}{8}$				

Hand Reamers—Short Set

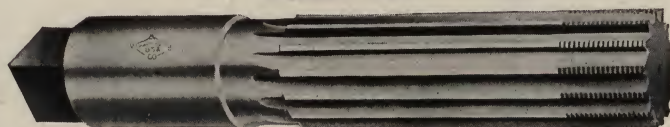


No. 120 I

Diameter, Inches.	Price, Each.	Length, Inches.	Length of Flute, Inches.	Diameter, Inches.	Price, Each.	Length, Inches.	Length of Flute, Inches.
$\frac{1}{4}$	\$1 30	$3\frac{3}{4}$	$2\frac{3}{16}$	$1\frac{3}{16}$	\$3 50	$8\frac{1}{4}$	$4\frac{1}{4}$
$\frac{5}{16}$	1 40	4	$2\frac{1}{4}$	$1\frac{1}{4}$	3 70	$8\frac{5}{8}$	$4\frac{1}{2}$
$\frac{3}{8}$	1 50	$4\frac{1}{4}$	$2\frac{3}{8}$	$1\frac{5}{16}$	3 90	9	$4\frac{3}{4}$
$\frac{7}{16}$	1 60	$4\frac{1}{2}$	$2\frac{7}{16}$	$1\frac{3}{8}$	4 10	$9\frac{3}{8}$	5
$\frac{1}{2}$	1 70	$4\frac{3}{4}$	$2\frac{9}{16}$	$1\frac{7}{16}$	4 35	$9\frac{3}{4}$	$5\frac{1}{4}$
$\frac{9}{16}$	1 80	5	$2\frac{5}{8}$	$1\frac{1}{2}$	4 70	10	$5\frac{1}{2}$
$\frac{5}{8}$	1 90	$5\frac{1}{4}$	$2\frac{3}{4}$	$1\frac{5}{8}$	5 20	$10\frac{1}{4}$	$5\frac{5}{8}$
$\frac{11}{16}$	2 05	$5\frac{1}{2}$	$2\frac{3}{4}$	$1\frac{5}{8}$	5 70	$10\frac{1}{2}$	$5\frac{3}{4}$
$\frac{3}{4}$	2 20	$5\frac{3}{4}$	3	$1\frac{11}{16}$	6 20	$10\frac{3}{4}$	$5\frac{7}{8}$
$\frac{13}{16}$	2 35	6	$3\frac{1}{8}$	$1\frac{3}{4}$	6 70	11	6
$\frac{7}{8}$	2 50	$6\frac{3}{8}$	$3\frac{1}{4}$	$1\frac{13}{16}$	7 10	$11\frac{1}{4}$	$6\frac{1}{8}$
$\frac{15}{16}$	2 70	$6\frac{3}{4}$	$3\frac{7}{16}$	$1\frac{7}{8}$	7 50	$11\frac{1}{2}$	$6\frac{1}{4}$
1	2 90	$7\frac{1}{8}$	$3\frac{5}{8}$	$1\frac{15}{16}$	7 90	$11\frac{3}{4}$	$6\frac{3}{8}$
$1\frac{1}{16}$	3 10	$7\frac{1}{2}$	$3\frac{3}{4}$	2	8 30	12	$6\frac{1}{2}$
$1\frac{1}{8}$	3 30	$7\frac{7}{8}$	4				

Hand Reamers with Threaded Ends (Self-Feeding)

Short Set



No. 123

Diameter, Inches.	Price, Each.	Length, Inches.	Length of Flute, Inches.	Diameter, Inches.	Price, Each.	Length, Inches.	Length of Flute, Inches.
$\frac{1}{4}$	\$1 30	$3\frac{3}{4}$	$2\frac{3}{16}$	$1\frac{3}{16}$	\$3 50	$8\frac{1}{4}$	$4\frac{1}{4}$
$\frac{5}{16}$	1 40	4	$2\frac{1}{4}$	$1\frac{1}{4}$	3 70	$8\frac{5}{8}$	$4\frac{1}{2}$
$\frac{3}{8}$	1 50	$4\frac{1}{4}$	$2\frac{3}{8}$	$1\frac{5}{16}$	3 90	9	$4\frac{3}{4}$
$\frac{7}{16}$	1 60	$4\frac{1}{2}$	$2\frac{7}{16}$	$1\frac{3}{8}$	4 10	$9\frac{3}{8}$	5
$\frac{1}{2}$	1 70	$4\frac{3}{4}$	$2\frac{9}{16}$	$1\frac{7}{16}$	4 35	$9\frac{3}{4}$	$5\frac{1}{4}$
$\frac{9}{16}$	1 80	5	$2\frac{5}{8}$	$1\frac{1}{2}$	4 70	10	$5\frac{1}{2}$
$\frac{5}{8}$	1 90	$5\frac{1}{4}$	$2\frac{3}{4}$	$1\frac{5}{8}$	5 20	$10\frac{1}{4}$	$5\frac{5}{8}$
$\frac{11}{16}$	2 05	$5\frac{1}{2}$	$2\frac{3}{4}$	$1\frac{5}{8}$	5 70	$10\frac{1}{2}$	$5\frac{3}{4}$
$\frac{3}{4}$	2 20	$5\frac{3}{4}$	3	$1\frac{11}{16}$	6 20	$10\frac{3}{4}$	$5\frac{7}{8}$
$\frac{13}{16}$	2 35	6	$3\frac{1}{8}$	$1\frac{3}{4}$	6 70	11	6
$\frac{7}{8}$	2 50	$6\frac{3}{8}$	$3\frac{1}{4}$	$1\frac{13}{16}$	7 10	$11\frac{1}{4}$	$6\frac{1}{8}$
$\frac{15}{16}$	2 70	$6\frac{3}{4}$	$3\frac{7}{16}$	$1\frac{7}{8}$	7 50	$11\frac{1}{2}$	$6\frac{1}{4}$
1	2 90	$7\frac{1}{8}$	$3\frac{5}{8}$	$1\frac{15}{16}$	7 90	$11\frac{3}{4}$	$6\frac{3}{8}$
$1\frac{1}{16}$	3 10	$7\frac{1}{2}$	$3\frac{3}{4}$	2	8 30	12	$6\frac{1}{2}$
$1\frac{1}{8}$	3 30	$7\frac{7}{8}$	4				

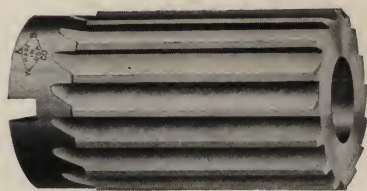
Taper Shank Jobbers' Reamers



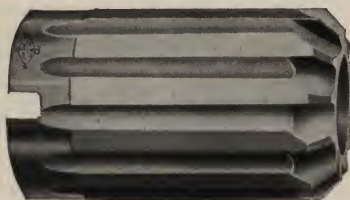
No. 116

Diameter, Inches.	Length, Inches.	Length Flute, Inches.	Price Each.	Shank Taper.
$\frac{1}{4}$	$5\frac{3}{16}$	2	\$1 50	No. 1
$\frac{1}{8}$	$5\frac{1}{2}$	$2\frac{1}{4}$	1 60	No. 1
$\frac{3}{8}$	$5\frac{13}{16}$	$2\frac{1}{2}$	1 70	No. 1
$\frac{1}{2}$	$6\frac{1}{8}$	$2\frac{3}{4}$	1 85	No. 1
$\frac{5}{8}$	$6\frac{7}{16}$	3	2 00	No. 1
$\frac{3}{4}$	$6\frac{3}{4}$	$3\frac{1}{4}$	2 15	No. 1
$\frac{7}{8}$	$7\frac{9}{16}$	$3\frac{1}{2}$	2 30	No. 2
1	8	$3\frac{3}{8}$	2 50	No. 2
$1\frac{1}{8}$	$8\frac{3}{8}$	$4\frac{1}{8}$	2 70	No. 2
$1\frac{1}{4}$	$8\frac{13}{16}$	$4\frac{3}{8}$	2 90	No. 2
$1\frac{3}{8}$	$9\frac{1}{8}$	$4\frac{1}{2}$	3 20	No. 2
$1\frac{1}{2}$	10	$5\frac{1}{8}$	3 50	No. 3
$1\frac{5}{8}$	$10\frac{3}{8}$	$5\frac{1}{4}$	3 80	No. 3
$1\frac{3}{4}$	$10\frac{5}{8}$	$5\frac{3}{8}$	4 10	No. 3
$1\frac{7}{8}$	$10\frac{7}{8}$	$5\frac{1}{2}$	4 40	No. 3
2	$11\frac{1}{8}$	6	4 70	No. 3
$2\frac{1}{8}$	$12\frac{1}{16}$	$6\frac{1}{8}$	5 00	No. 4
$2\frac{1}{4}$	$12\frac{1}{8}$	$6\frac{1}{4}$	5 30	No. 4
$2\frac{3}{8}$	$12\frac{3}{8}$	$6\frac{3}{8}$	5 70	No. 4
$2\frac{1}{2}$	13	$6\frac{1}{2}$	6 10	No. 4
$2\frac{5}{8}$	$13\frac{1}{8}$	$6\frac{1}{2}$	6 50	No. 4
$2\frac{3}{4}$	$13\frac{1}{4}$	$6\frac{1}{2}$	6 90	No. 4
$2\frac{7}{8}$	$13\frac{1}{2}$	$6\frac{3}{4}$	7 30	No. 4
3	$14\frac{1}{16}$	$6\frac{3}{4}$	7 70	No. 4
$3\frac{1}{8}$	$14\frac{1}{8}$	$6\frac{3}{4}$	8 00	No. 5
$3\frac{1}{4}$	15	7	8 40	No. 5
$3\frac{3}{8}$	15	7	8 80	No. 5
$3\frac{1}{2}$	15	7	9 20	No. 5
$3\frac{5}{8}$	$15\frac{1}{2}$	$7\frac{1}{4}$	9 60	No. 5
$3\frac{3}{4}$	$15\frac{1}{2}$	$7\frac{1}{4}$	10 00	No. 5
$3\frac{7}{8}$	$15\frac{1}{2}$	$7\frac{1}{4}$	10 40	No. 5
4	$15\frac{1}{2}$	$7\frac{1}{4}$	10 80	No. 5
$4\frac{1}{8}$	16	$7\frac{1}{2}$	11 30	No. 5
$4\frac{1}{4}$	16	$7\frac{1}{2}$	11 80	No. 5
$4\frac{3}{8}$	16	$7\frac{1}{2}$	12 30	No. 5
$4\frac{1}{2}$	16	$7\frac{1}{2}$	12 80	No. 5
$4\frac{5}{8}$	16	$7\frac{3}{4}$	13 40	No. 5
$4\frac{3}{4}$	$16\frac{1}{2}$	$7\frac{3}{4}$	14 00	No. 5
$4\frac{7}{8}$	$16\frac{1}{2}$	$7\frac{3}{4}$	14 60	No. 5
5	$16\frac{1}{2}$	$7\frac{3}{4}$	15 40	No. 5
$5\frac{1}{8}$	17	8	16 20	No. 5
$5\frac{1}{4}$	17	8	17 00	No. 5
$5\frac{3}{8}$	17	8	17 80	No. 5
$5\frac{1}{2}$	17	8	18 60	No. 5
$5\frac{5}{8}$	17	8	19 40	No. 5

Fluted Shell Reamers



Rose Shell Reamers

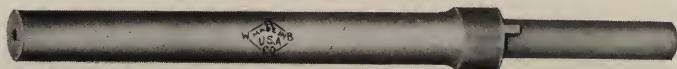


No. 117

No. 117 A

Diameter Inches.	Length Inches.	Size Hole Inches.	Fitting Arbor Number.	Price Each.	Diameter, Inches.	Length Inches.	Size Hole Inches.	Fitting Arbor Number.	Price Each.
$\frac{1}{2}$	2	$\frac{1}{4}$	3	\$1 40	$2\frac{1}{16}$	4	$1\frac{1}{2}$	10	\$8 40
$\frac{7}{16}$	2	$\frac{1}{4}$	3	1 50	$2\frac{7}{8}$	4	$1\frac{1}{2}$	10	8 80
$\frac{5}{8}$	$2\frac{1}{4}$	$\frac{3}{8}$	4	1 60	$2\frac{1}{8}$	4	$1\frac{1}{2}$	10	9 20
$\frac{11}{16}$	$2\frac{1}{4}$	$\frac{3}{8}$	4	1 60	3	4	$1\frac{1}{2}$	10	9 60
$\frac{3}{4}$	$2\frac{1}{2}$	$\frac{1}{2}$	5	1 60	$3\frac{1}{16}$	$4\frac{1}{2}$	$1\frac{3}{4}$	11	9 90
$\frac{13}{16}$	$2\frac{1}{2}$	$\frac{1}{2}$	5	1 60	$3\frac{1}{8}$	$4\frac{1}{2}$	$1\frac{3}{4}$	11	10 20
$\frac{7}{8}$	$2\frac{1}{2}$	$\frac{1}{2}$	5	1 70	$3\frac{3}{16}$	$4\frac{1}{2}$	$1\frac{3}{4}$	11	10 60
$\frac{15}{16}$	$2\frac{1}{2}$	$\frac{1}{2}$	5	1 70	$3\frac{1}{4}$	$4\frac{1}{2}$	$1\frac{3}{4}$	11	11 00
1	$2\frac{3}{4}$	$\frac{5}{8}$	6	1 80	$3\frac{5}{16}$	$4\frac{1}{2}$	$1\frac{3}{4}$	11	11 50
$1\frac{1}{16}$	$2\frac{3}{4}$	$\frac{5}{8}$	6	1 80	$3\frac{3}{8}$	$4\frac{1}{2}$	$1\frac{3}{4}$	11	12 00
$1\frac{1}{8}$	$2\frac{3}{4}$	$\frac{5}{8}$	6	1 90	$3\frac{7}{16}$	$4\frac{1}{2}$	$1\frac{3}{4}$	11	12 50
$1\frac{3}{16}$	$2\frac{3}{4}$	$\frac{5}{8}$	6	2 00	$3\frac{1}{2}$	$4\frac{1}{2}$	$1\frac{3}{4}$	11	13 00
$1\frac{1}{4}$	$2\frac{3}{4}$	$\frac{5}{8}$	6	2 20	$3\frac{9}{16}$	5	2	12	13 50
$1\frac{5}{8}$	3	$\frac{3}{4}$	7	2 40	$3\frac{5}{8}$	5	2	12	14 00
$1\frac{7}{8}$	3	$\frac{3}{4}$	7	2 60	$3\frac{11}{16}$	5	2	12	14 50
$1\frac{9}{16}$	3	$\frac{3}{4}$	7	2 80	$3\frac{3}{4}$	5	2	12	15 00
$1\frac{1}{2}$	3	$\frac{3}{4}$	7	3 00	$3\frac{13}{16}$	5	2	12	15 50
$1\frac{5}{8}$	3	$\frac{3}{4}$	7	3 20	$3\frac{7}{8}$	5	2	12	16 00
$1\frac{3}{4}$	3	$\frac{3}{4}$	7	3 50	$3\frac{15}{16}$	5	2	12	17 00
$1\frac{11}{16}$	$3\frac{1}{2}$	1	8	3 80	4	5	2	12	18 00
$1\frac{3}{4}$	$3\frac{1}{2}$	1	8	4 10	$4\frac{1}{16}$	$5\frac{1}{2}$	$2\frac{1}{4}$	13	18 30
$1\frac{13}{16}$	$3\frac{1}{2}$	1	8	4 40	$4\frac{1}{8}$	$5\frac{1}{2}$	$2\frac{1}{4}$	13	18 60
$1\frac{1}{8}$	$3\frac{1}{2}$	1	8	4 70	$4\frac{3}{16}$	$5\frac{1}{2}$	$2\frac{1}{4}$	13	19 00
$1\frac{5}{8}$	$3\frac{1}{2}$	1	8	5 00	$4\frac{1}{4}$	$5\frac{1}{2}$	$2\frac{1}{4}$	13	19 40
$1\frac{7}{8}$	$3\frac{1}{2}$	1	8	5 20	$4\frac{1}{2}$	$5\frac{1}{2}$	$2\frac{1}{4}$	13	19 80
2	$3\frac{1}{2}$	1	8	5 40	$4\frac{5}{8}$	$5\frac{1}{2}$	$2\frac{1}{4}$	13	20 20
$2\frac{1}{16}$	$3\frac{3}{4}$	$1\frac{1}{4}$	9	5 60	$4\frac{7}{16}$	$5\frac{1}{2}$	$2\frac{1}{4}$	13	20 60
$2\frac{1}{8}$	$3\frac{3}{4}$	$1\frac{1}{4}$	9	5 80	$4\frac{9}{16}$	$5\frac{1}{2}$	$2\frac{1}{4}$	13	21 00
$2\frac{3}{16}$	$3\frac{3}{4}$	$1\frac{1}{4}$	9	6 00	$4\frac{1}{2}$	6	$2\frac{1}{2}$	14	21 60
$2\frac{1}{4}$	$3\frac{3}{4}$	$1\frac{1}{4}$	9	6 20	$4\frac{5}{8}$	6	$2\frac{1}{2}$	14	22 20
$2\frac{5}{16}$	$3\frac{3}{4}$	$1\frac{1}{4}$	9	6 40	$4\frac{11}{16}$	6	$2\frac{1}{2}$	14	22 80
$2\frac{3}{8}$	$3\frac{3}{4}$	$1\frac{1}{4}$	9	6 60	$4\frac{3}{4}$	6	$2\frac{1}{2}$	14	23 40
$2\frac{7}{16}$	$3\frac{3}{4}$	$1\frac{1}{4}$	9	6 80	$4\frac{13}{16}$	6	$2\frac{1}{2}$	14	24 00
$2\frac{1}{2}$	4	$1\frac{1}{2}$	10	7 00	$4\frac{7}{8}$	6	$2\frac{1}{2}$	14	24 60
$2\frac{5}{8}$	4	$1\frac{1}{2}$	10	7 30	$4\frac{15}{16}$	6	$2\frac{1}{2}$	14	25 20
$2\frac{11}{16}$	4	$1\frac{1}{2}$	10	7 60	5	6	$2\frac{1}{2}$	14	26 00
$2\frac{3}{4}$	4	$1\frac{1}{2}$	10	8 00	$5\frac{1}{4}$	6	$2\frac{1}{2}$	15	30 00
					$5\frac{1}{2}$	6	$2\frac{1}{2}$	15	34 00
					$5\frac{3}{4}$	6	$2\frac{1}{2}$	16	38 00
					6	6	$2\frac{1}{2}$	16	42 00

Arbors for Shell Reamers With Straight Shank



No. 120 J

No.	Price Each.	Fitting Sizes Inches.	Lgth. In.	No.	Price Each.	Fitting Sizes Inches.	Lgth. In.
1	\$1 20	$\frac{1}{4}$ to $\frac{5}{16}$	6	9	\$3 00	$2\frac{1}{16}$ to $2\frac{1}{2}$	13
2	1 40	$\frac{3}{8}$ " $\frac{7}{16}$	7	10	3 40	$2\frac{3}{16}$ " 3	14
3	1 60	$\frac{1}{2}$ " $\frac{9}{16}$	8	11	5 00	$3\frac{1}{16}$ " $3\frac{1}{2}$	15
4	1 80	$\frac{5}{8}$ " $\frac{11}{16}$	9	12	7 00	$3\frac{3}{16}$ " 4	16
5	2 00	$\frac{3}{4}$ " $\frac{13}{16}$	$9\frac{1}{2}$	13	9 00	$4\frac{1}{16}$ " $4\frac{1}{2}$	17
6	2 20	1 " $1\frac{1}{4}$	10	14	12 00	$4\frac{3}{16}$ " 6	18
7	2 40	$1\frac{5}{16}$ " $1\frac{5}{8}$	11	15	14 75	$5\frac{1}{16}$ " $5\frac{1}{2}$	19
8	2 70	$1\frac{11}{16}$ " 2	12	16	17 50	$5\frac{3}{16}$ " 6	20

Arbors for Shell Reamers With Taper Shank



No. 120 T

Size.	Price Each.	Fitting Sizes Inches.	Length Inches.	Size of Shank.
1	\$2 20	$\frac{1}{4}$ to $\frac{5}{16}$	6	No. 1
2	2 40	$\frac{3}{8}$ " $\frac{7}{16}$	7	No. 1
3	2 60	$\frac{1}{2}$ " $\frac{9}{16}$	8	No. 1
4	2 80	$\frac{5}{8}$ " $\frac{11}{16}$	9	No. 2
5	3 00	$\frac{3}{4}$ " $\frac{13}{16}$	$9\frac{1}{2}$	No. 2
6	3 20	1 " $1\frac{1}{4}$	10	No. 3
7	3 40	$1\frac{5}{16}$ " $1\frac{5}{8}$	11	No. 3
8	3 70	$1\frac{11}{16}$ " 2	12	No. 4
9	4 50	$2\frac{1}{16}$ " $2\frac{1}{2}$	13	No. 4
10	4 90	$2\frac{3}{16}$ " 3	14	No. 5
11	6 75	$3\frac{1}{16}$ " $3\frac{1}{2}$	15	No. 5
12	8 75	$3\frac{3}{16}$ " 4	16	No. 5
13	10 75	$4\frac{1}{16}$ " $4\frac{1}{2}$	17	No. 5
14	14 00	$4\frac{3}{16}$ " 5	18	No. 5
15	16 75	$5\frac{1}{16}$ " $5\frac{1}{2}$	19	No. 6
16	19 50	$5\frac{3}{16}$ " 6	20	No. 6

Taper Reamers



No. 118. Finishing Reamer



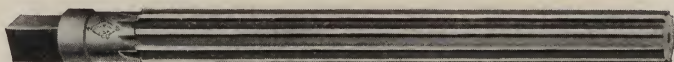
No. 118A. Roughing Reamer

	Price, Each.
For Reamer, Taper of Drill Socket No. 0.....	\$1 60
For Reamer, Taper of Drill Socket No. 1.....	2 00
For Reamer, Taper of Drill Socket No. 2.....	2 60
For Reamer, Taper of Drill Socket No. 3.....	3 40
For Reamer, Taper of Drill Socket No. 4.....	4 20
For Reamer, Taper of Drill Socket No. 5.....	6 60
For Reamer, Taper of Drill Socket No. 6.....	12 00
For Reamer, Taper of Drill Socket No. 7.....	25 00

Dimensions of Taper Reamers

No. of Reamer.	Length, Inches.	Length of Flute, Inches.	Diameter at Large End, Inches.	Diameter at Small End, Inches.	Taper Per Foot, Inches.
No. 0	3¾	2¼	.369	.252	.625
No. 1	5½	3	.519	.369	.600
No. 2	7	3½	.7475	.572	.602
No. 3	8	4¼	.991	.778	.602
No. 4	9	5¼	1.292	1.020	.623
No. 5	10	6¼	1.803	1.475	.630
No. 6	12	8½	2.559	2.116	.626
No. 7	16	12	3.375	2.750	.625

Standard Taper or Rod Reamers For Locomotive Work



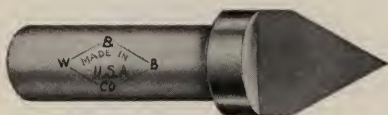
No. 120A

Taper $\frac{1}{16}$ inch, per foot, as in use by railway companies.

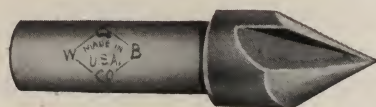
Diameter at Small End, Inches.	Price Each.	Length of Flute, Inches.	Length, Inches.	Diameter at Small End, Ins.	Price Each.	Length of Flute, Inches.	Length, Inches.
$\frac{1}{4}$	\$2 20	4	$5\frac{5}{16}$	1	\$ 5 40	9	$11\frac{1}{4}$
$\frac{9}{32}$	2 20	4	$5\frac{5}{16}$	$1\frac{1}{16}$	5 70	9	$11\frac{1}{4}$
$\frac{5}{16}$	2 25	4	$5\frac{5}{16}$	$1\frac{1}{8}$	6 20	10	$12\frac{1}{4}$
$\frac{11}{32}$	2 25	4	$5\frac{5}{16}$	$1\frac{3}{16}$	6 60	10	$12\frac{1}{4}$
$\frac{3}{8}$	2 30	5	$6\frac{5}{16}$	$1\frac{1}{4}$	7 00	10	$12\frac{1}{4}$
$\frac{13}{32}$	2 40	5	$6\frac{5}{16}$	$1\frac{5}{16}$	7 60	12	$14\frac{1}{2}$
$\frac{7}{16}$	2 55	6	$7\frac{5}{16}$	$1\frac{3}{8}$	8 00	12	$14\frac{1}{2}$
$\frac{15}{32}$	2 70	6	$7\frac{5}{16}$	$1\frac{7}{16}$	8 50	12	$14\frac{1}{2}$
$\frac{1}{2}$	3 00	7	$8\frac{5}{8}$	$1\frac{1}{2}$	9 00	12	$14\frac{1}{2}$
$\frac{9}{16}$	3 20	8	$9\frac{7}{8}$	$1\frac{9}{16}$	9 60	14	$16\frac{1}{2}$
$\frac{5}{8}$	3 50	8	$9\frac{7}{8}$	$1\frac{5}{8}$	10 20	14	$16\frac{1}{2}$
$\frac{11}{16}$	3 80	8	$9\frac{7}{8}$	$1\frac{11}{16}$	10 85	14	$16\frac{1}{2}$
$\frac{3}{4}$	4 10	8	$9\frac{7}{8}$	$1\frac{3}{4}$	11 60	14	$16\frac{1}{2}$
$\frac{13}{16}$	4 50	9	$11\frac{1}{4}$	$1\frac{13}{16}$	12 40	16	$18\frac{1}{2}$
$\frac{7}{8}$	4 80	9	$11\frac{1}{4}$	$1\frac{7}{8}$	14 00	16	$18\frac{1}{2}$
$\frac{15}{16}$	5 10	9	$11\frac{1}{4}$	$1\frac{15}{16}$	15 00	16	$18\frac{1}{2}$
				2	16 00	16	$18\frac{1}{2}$

Reamers of other taper per foot than as specified above furnished as desired.

Center Reamers 60 Degree Angle



Style A



Style B

No. 120 M

Size Cut, Inches.	Diameter of Shank, Inches.	STYLE A.		STYLE B.	
		Price Each.	Price Per Doz.	Price Each.	Price Per Doz.
$\frac{1}{4}$	$\frac{3}{16}$	\$0 22	\$2 50	\$0 25	\$2 90
$\frac{3}{8}$	$\frac{1}{4}$	25	2 90	30	3 25
$\frac{1}{2}$	$\frac{3}{8}$	30	3 25	35	3 75
$\frac{3}{4}$	$\frac{1}{2}$	70	8 00	75	8 50

Packed, $\frac{1}{4}$ to $\frac{3}{8}$, inclusive, one dozen in a box; $\frac{1}{2}$ to $\frac{3}{4}$, inclusive, one-half dozen in a box.

Standard Taper Reamers

For Bridge Builders

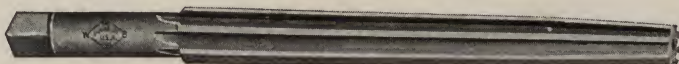


No. 120 C

Diameter, Inches.	Length of Flute, Inches.	Length of End Tapered, Inches.	Length, Inches.	Price Each.
$\frac{9}{16}$ - $\frac{15}{32}$ - $\frac{5}{16}$	7	2	$9\frac{1}{2}$	\$2 80
$\frac{5}{8}$ - $\frac{17}{32}$ - $\frac{3}{8}$	7	2	$9\frac{1}{2}$	2 90
$\frac{11}{16}$ - $\frac{19}{32}$ - $\frac{1}{2}$	7	2	$9\frac{1}{2}$	3 00
$\frac{3}{4}$ - $\frac{21}{32}$ - $\frac{1}{2}$	7	2	$9\frac{1}{2}$	3 10
$\frac{13}{16}$ - $\frac{23}{32}$ - $\frac{1}{2}$	7	2	$9\frac{1}{2}$	3 30
$\frac{7}{8}$ - $\frac{25}{32}$ - $\frac{5}{8}$	7	2	$9\frac{1}{2}$	3 50
$\frac{15}{16}$ - $\frac{27}{32}$ - $\frac{11}{16}$	7	2	$9\frac{1}{2}$	3 70
1 - $\frac{29}{32}$ - $\frac{3}{4}$	7	2	$9\frac{1}{2}$	3 90
1 $\frac{1}{16}$ - $\frac{31}{32}$ - $\frac{13}{16}$	7	2	$9\frac{1}{2}$	4 00
1 $\frac{1}{8}$ - $\frac{1}{2}$ - $\frac{7}{8}$	7	2	$9\frac{1}{2}$	4 30
1 $\frac{3}{16}$ - $\frac{1}{2}$ - $\frac{13}{16}$	7	2	$9\frac{1}{2}$	4 60
1 $\frac{1}{4}$ - $\frac{1}{2}$ - 1	7	2	$9\frac{1}{2}$	4 90
1 $\frac{5}{16}$ - $\frac{1}{2}$ - 1 $\frac{1}{16}$	7	2	$9\frac{1}{2}$	5 20
1 $\frac{3}{8}$ - $\frac{1}{2}$ - 1 $\frac{1}{8}$	7	2	$9\frac{1}{2}$	5 60
1 $\frac{7}{16}$ - $\frac{11}{16}$ - 1 $\frac{3}{16}$	7	2	$9\frac{1}{2}$	6 00
1 $\frac{1}{2}$ - 1 $\frac{13}{16}$ - 1 $\frac{1}{4}$	7	2	$9\frac{1}{2}$	6 40

Special sizes made to order.

Standard Taper-Pin Reamers



No. 120 D

Taper $\frac{1}{4}$ -inch. per foot.

Size No.	Diameter at Small End, Inches.	Length of Flute, Inches.	Length, Inches.	Price, Each.
0	.135	$1\frac{1}{2}$	$2\frac{1}{4}$	\$1 00
1	.146	$1\frac{3}{4}$	$2\frac{1}{2}$	1 00
2	.162	2	3	1 25
3	.183	$2\frac{1}{4}$	$3\frac{1}{2}$	1 50
4	.208	$2\frac{1}{2}$	4	1 75
5	.240	3	$4\frac{1}{2}$	2 00
6	.279	$3\frac{5}{8}$	5	2 25
7	.331	$4\frac{1}{2}$	6	2 50
8	.398	$5\frac{1}{4}$	$6\frac{3}{4}$	3 00
9	.482	$6\frac{1}{8}$	8	3 50
10	.581	7	9	4 00
11	.706	$8\frac{1}{4}$	$11\frac{1}{4}$	4 75
12	.842	10	$13\frac{3}{8}$	5 50
13	1.009	12	16	6 50
14	1.250	14	$18\frac{1}{4}$	7 75

These reamers have the same taper, and each will overlay in convenient measure the size next smaller.

Fluted Chucking Reamers

With Taper Shanks



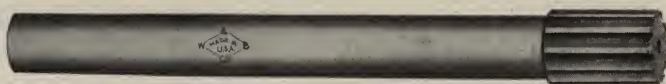
No. 120 E

Diameter, Inches.	Price, Each.	Length, Inches.	Length Flutes, Inches.	Shank Taper.	Diameter, Inches.	Price, Each.	Length, Inches.	Length Flutes, Inches.	Shank Taper.
$\frac{1}{4}$	\$1 20	6	$\frac{7}{8}$	No. 1	$\frac{1}{4}$	\$3 50	$11\frac{1}{2}$	$\frac{17}{8}$	No. 4
$\frac{9}{32}$	1 20	6	$\frac{7}{8}$		$1\frac{5}{16}$	3 70	$11\frac{1}{2}$	$\frac{17}{8}$	
$\frac{5}{16}$	1 30	6	$\frac{7}{8}$		$1\frac{3}{8}$	3 95	12	2	
$\frac{11}{32}$	1 30	6	$\frac{7}{8}$		$1\frac{7}{16}$	4 15	12	2	
$\frac{3}{8}$	1 45	7	1		$1\frac{1}{2}$	4 40	$12\frac{1}{2}$	$2\frac{1}{8}$	
$\frac{13}{32}$	1 50	7	1		$1\frac{9}{16}$	4 60	$12\frac{1}{2}$	$2\frac{3}{8}$	
$\frac{7}{16}$	1 55	7	1		$1\frac{5}{8}$	4 85	13	$2\frac{1}{4}$	
$\frac{15}{32}$	1 60	7	1		$1\frac{11}{16}$	5 10	13	$2\frac{1}{4}$	
$\frac{1}{2}$	1 65	8	$1\frac{1}{8}$		$1\frac{3}{4}$	5 30	$13\frac{1}{2}$	$2\frac{3}{8}$	
$\frac{17}{32}$	1 70	8	$1\frac{1}{8}$		$1\frac{13}{16}$	5 50	$13\frac{1}{2}$	$2\frac{3}{8}$	
$\frac{9}{16}$	1 75	8	$1\frac{1}{8}$		$1\frac{7}{8}$	5 70	14	$2\frac{1}{2}$	
$\frac{19}{32}$	1 80	8	$1\frac{1}{8}$		$1\frac{15}{16}$	5 95	14	$2\frac{1}{2}$	
$\frac{5}{8}$	1 90	9	$1\frac{1}{4}$	No. 2	2	6 20	14	$2\frac{1}{2}$	No. 5
$\frac{21}{32}$	1 95	9	$1\frac{1}{4}$		$2\frac{1}{16}$	6 50	$14\frac{1}{2}$	$2\frac{3}{4}$	
$\frac{11}{16}$	2 00	9	$1\frac{1}{4}$		$2\frac{1}{8}$	6 80	$14\frac{1}{2}$	$2\frac{3}{4}$	
$\frac{23}{32}$	2 10	9	$1\frac{1}{4}$		$2\frac{3}{16}$	7 10	$14\frac{1}{2}$	$2\frac{3}{4}$	
$\frac{3}{4}$	2 20	$9\frac{1}{2}$	$1\frac{3}{8}$		$2\frac{1}{4}$	7 40	$14\frac{1}{2}$	$2\frac{3}{4}$	
$\frac{25}{32}$	2 30	$9\frac{1}{2}$	$1\frac{3}{8}$		$2\frac{5}{16}$	7 70	15	3	
$\frac{13}{16}$	2 40	$9\frac{1}{2}$	$1\frac{3}{8}$		$2\frac{3}{8}$	8 00	15	3	
$\frac{27}{32}$	2 50	$9\frac{1}{2}$	$1\frac{3}{8}$		$2\frac{7}{16}$	8 40	15	3	
$\frac{7}{8}$	2 55	10	$1\frac{1}{2}$		$2\frac{1}{2}$	8 80	15	3	
$\frac{29}{32}$	2 60	10	$1\frac{1}{2}$		$2\frac{9}{16}$	9 20	$15\frac{1}{2}$	$3\frac{1}{4}$	
$\frac{15}{16}$	2 65	10	$1\frac{1}{2}$		$2\frac{5}{8}$	9 60	$15\frac{1}{2}$	$3\frac{1}{4}$	
$\frac{31}{32}$	2 70	10	$1\frac{1}{2}$		$2\frac{11}{16}$	10 00	$15\frac{1}{2}$	$3\frac{1}{4}$	
1	2 75	$10\frac{1}{2}$	$1\frac{5}{8}$	No. 3	$2\frac{3}{4}$	10 40	$15\frac{1}{2}$	$3\frac{1}{4}$	
$1\frac{1}{32}$	2 80	$10\frac{1}{2}$	$1\frac{5}{8}$		$2\frac{13}{16}$	10 80	16	$3\frac{1}{2}$	
$1\frac{1}{16}$	2 85	$10\frac{1}{2}$	$1\frac{5}{8}$		$2\frac{7}{8}$	11 20	16	$3\frac{1}{2}$	
$1\frac{3}{32}$	2 95	$10\frac{1}{2}$	$1\frac{5}{8}$		$2\frac{15}{16}$	11 60	16	$3\frac{1}{2}$	
$1\frac{1}{8}$	3 10	11	$1\frac{3}{4}$		3	12 00	16	$3\frac{1}{2}$	
$1\frac{1}{16}$	3 20	11	$1\frac{3}{4}$		.....	.....	.....	.....
$1\frac{3}{16}$	3 30	11	$1\frac{3}{4}$		.....	.....	.....	.....
$1\frac{7}{32}$	3 40	11	$1\frac{3}{4}$		.....	.....	.....	.....

These Reamers will be furnished not to exceed .005-inch under size at regular price when so ordered.

Fluted Chucking Reamers

With Straight Shanks



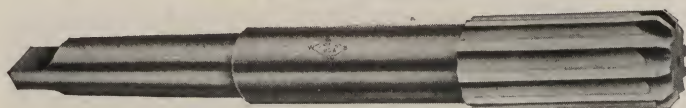
No. 120F

Diameter, Inches.	Price, Each.	Length, Inches.	Length of Flute, Inches.	Diameter, Inches.	Price, Each.	Length, Inches.	Length of Flute, Inches.
$\frac{1}{4}$	\$0 90	6	$\frac{7}{8}$	$1\frac{3}{4}$	\$2 85	11	$1\frac{3}{4}$
$\frac{5}{16}$	95	6	$\frac{7}{8}$	$1\frac{1}{4}$	2 90	$11\frac{1}{2}$	$1\frac{7}{8}$
$\frac{3}{8}$	1 00	6	$\frac{7}{8}$	$1\frac{5}{8}$	3 05	$11\frac{1}{2}$	$1\frac{7}{8}$
$\frac{7}{16}$	1 05	6	$\frac{7}{8}$	$1\frac{3}{8}$	3 20	12	2
$\frac{1}{2}$	1 10	7	1	$1\frac{7}{8}$	3 35	12	2
$\frac{9}{16}$	1 15	7	1	$1\frac{1}{2}$	3 50	$12\frac{1}{2}$	$2\frac{1}{8}$
$\frac{5}{8}$	1 20	7	1	$1\frac{9}{16}$	3 65	$12\frac{1}{2}$	$2\frac{1}{8}$
$\frac{11}{16}$	1 25	7	1	$1\frac{5}{8}$	3 80	13	$2\frac{1}{4}$
$\frac{3}{4}$	1 30	8	$1\frac{1}{8}$	$1\frac{11}{16}$	4 00	13	$2\frac{1}{4}$
$\frac{13}{16}$	1 35	8	$1\frac{1}{8}$	$1\frac{3}{4}$	4 20	$13\frac{1}{2}$	$2\frac{3}{8}$
$\frac{7}{8}$	1 40	8	$1\frac{1}{8}$	$1\frac{13}{16}$	4 40	$13\frac{1}{2}$	$2\frac{3}{8}$
$\frac{15}{16}$	1 45	8	$1\frac{1}{8}$	$1\frac{7}{8}$	4 60	14	$2\frac{1}{2}$
1	1 50	9	$1\frac{1}{4}$	$1\frac{15}{16}$	4 80	14	$2\frac{1}{2}$
$1\frac{1}{16}$	1 55	9	$1\frac{1}{4}$	2	5 00	14	$2\frac{1}{2}$
$1\frac{1}{8}$	1 60	9	$1\frac{1}{4}$	$2\frac{1}{16}$	5 30	$14\frac{1}{2}$	$2\frac{3}{4}$
$1\frac{1}{4}$	1 65	9	$1\frac{1}{4}$	$2\frac{1}{8}$	5 60	$14\frac{1}{2}$	$2\frac{3}{4}$
$1\frac{3}{8}$	1 70	$9\frac{1}{2}$	$1\frac{3}{8}$	$2\frac{3}{16}$	5 90	$14\frac{1}{2}$	$2\frac{3}{4}$
$1\frac{1}{2}$	1 80	$9\frac{1}{2}$	$1\frac{3}{8}$	$2\frac{1}{4}$	6 20	$14\frac{1}{2}$	$2\frac{3}{4}$
$1\frac{5}{8}$	1 85	$9\frac{1}{2}$	$1\frac{3}{8}$	$2\frac{5}{16}$	6 50	15	3
$1\frac{3}{4}$	1 90	$9\frac{1}{2}$	$1\frac{3}{8}$	$2\frac{3}{8}$	6 80	15	3
2	2 00	10	$1\frac{1}{2}$	$2\frac{7}{16}$	7 10	15	3
$2\frac{1}{16}$	2 10	10	$1\frac{1}{2}$	$2\frac{1}{2}$	7 40	15	3
$2\frac{1}{8}$	2 15	10	$1\frac{1}{2}$	$2\frac{9}{16}$	7 70	$15\frac{1}{2}$	$3\frac{1}{4}$
$2\frac{1}{4}$	2 25	10	$1\frac{1}{2}$	$2\frac{5}{8}$	8 00	$15\frac{1}{2}$	$3\frac{1}{4}$
$2\frac{3}{8}$	2 30	$10\frac{1}{2}$	$1\frac{5}{8}$	$2\frac{11}{16}$	8 35	$15\frac{1}{2}$	$3\frac{1}{4}$
$2\frac{1}{2}$	2 40	$10\frac{1}{2}$	$1\frac{5}{8}$	$2\frac{3}{4}$	8 70	$15\frac{1}{2}$	$3\frac{1}{4}$
$2\frac{5}{8}$	2 45	$10\frac{1}{2}$	$1\frac{5}{8}$	$2\frac{13}{16}$	9 00	16	$3\frac{1}{2}$
$2\frac{3}{4}$	2 55	$10\frac{1}{2}$	$1\frac{5}{8}$	$2\frac{7}{8}$	9 35	16	$3\frac{1}{2}$
3	2 60	11	$1\frac{3}{4}$	$2\frac{15}{16}$	9 70	16	$3\frac{1}{2}$
$3\frac{1}{16}$	2 70	11	$1\frac{3}{4}$	3	10 00	16	$3\frac{1}{2}$
$3\frac{1}{8}$	2 75	11	$1\frac{3}{4}$	.....	.....	.....	.....

These reamers will be furnished not to exceed .005-inch under size at regular price when so ordered.

Rose Chucking Reamers

With Taper Shanks



No. 120 G

Diameter, Inches.	Price, Each.	Length, Inches.	Length Flute, Inches.	Shank Taper.	Diameter, Inches.	Price, Each.	Length, Inches.	Length Flute, Inches.	Shank Taper.
$\frac{1}{4}$	\$1 20	6	$1\frac{1}{2}$	No. 1	$\frac{1}{4}$	\$3 50	$11\frac{1}{2}$	3	No. 4
$\frac{5}{32}$	1 20	6	$1\frac{1}{2}$		$1\frac{5}{16}$	3 70	$11\frac{1}{2}$	3	
$\frac{3}{16}$	1 30	6	$1\frac{1}{2}$		$1\frac{3}{8}$	3 95	12	$3\frac{1}{4}$	
$\frac{11}{32}$	1 30	6	$1\frac{1}{2}$		$1\frac{1}{16}$	4 15	12	$3\frac{1}{4}$	
$\frac{3}{8}$	1 45	7	$1\frac{3}{4}$		$1\frac{1}{2}$	4 40	$12\frac{1}{2}$	$3\frac{1}{2}$	
$\frac{13}{32}$	1 50	7	$1\frac{3}{4}$		$1\frac{9}{16}$	4 60	$12\frac{1}{2}$	$3\frac{1}{2}$	
$\frac{7}{16}$	1 55	7	$1\frac{3}{4}$		$1\frac{5}{8}$	4 85	13	$3\frac{3}{4}$	
$\frac{15}{32}$	1 60	7	$1\frac{3}{4}$		$1\frac{11}{16}$	5 10	13	$3\frac{3}{4}$	
$\frac{1}{2}$	1 65	8	2		$1\frac{3}{4}$	5 30	$13\frac{1}{2}$	4	
$\frac{17}{32}$	1 70	8	2		$1\frac{13}{16}$	5 50	$13\frac{1}{2}$	4	
$\frac{9}{16}$	1 75	8	2		$1\frac{7}{8}$	5 70	14	$4\frac{1}{4}$	
$\frac{19}{32}$	1 80	8	2		$1\frac{15}{16}$	5 95	14	$4\frac{1}{4}$	
$\frac{5}{8}$	1 90	9	$2\frac{1}{4}$		2	6 20	14	$4\frac{1}{4}$	
$\frac{21}{32}$	1 95	9	$2\frac{1}{4}$		$2\frac{1}{16}$	6 50	$14\frac{1}{2}$	$4\frac{1}{2}$	
$\frac{11}{16}$	2 00	9	$2\frac{1}{4}$		$2\frac{1}{8}$	6 80	$14\frac{1}{2}$	$4\frac{1}{2}$	
$\frac{23}{32}$	2 10	9	$2\frac{1}{4}$	No. 2	$2\frac{3}{16}$	7 10	$14\frac{1}{2}$	$4\frac{1}{2}$	No. 5
$\frac{3}{4}$	2 20	$9\frac{1}{2}$	$2\frac{1}{2}$		$2\frac{1}{4}$	7 40	$14\frac{1}{2}$	$4\frac{1}{2}$	
$\frac{25}{32}$	2 30	$9\frac{1}{2}$	$2\frac{1}{2}$		$2\frac{5}{16}$	7 70	15	$4\frac{3}{4}$	
$\frac{13}{16}$	2 40	$9\frac{1}{2}$	$2\frac{1}{2}$		$2\frac{3}{8}$	8 00	15	$4\frac{3}{4}$	
$\frac{27}{32}$	2 50	$9\frac{1}{2}$	$2\frac{1}{2}$		$2\frac{7}{16}$	8 40	15	$4\frac{3}{4}$	
$\frac{7}{8}$	2 55	10	$2\frac{5}{8}$		$2\frac{1}{2}$	8 80	15	$4\frac{3}{4}$	
$\frac{29}{32}$	2 60	10	$2\frac{5}{8}$		$2\frac{9}{16}$	9 20	$15\frac{1}{2}$	5	
$\frac{15}{16}$	2 65	10	$2\frac{5}{8}$		$2\frac{5}{8}$	9 60	$15\frac{1}{2}$	5	
$\frac{31}{32}$	2 70	10	$2\frac{5}{8}$		$2\frac{11}{16}$	10 00	$15\frac{1}{2}$	5	
1	2 75	$10\frac{1}{2}$	$2\frac{3}{4}$		$2\frac{3}{4}$	10 40	$15\frac{1}{2}$	5	
$1\frac{1}{32}$	2 80	$10\frac{1}{2}$	$2\frac{3}{4}$	No. 3	$2\frac{13}{16}$	10 80	16	$5\frac{1}{4}$	
$1\frac{1}{16}$	2 85	$10\frac{1}{2}$	$2\frac{3}{4}$		$2\frac{7}{8}$	11 20	16	$5\frac{1}{4}$	
$1\frac{3}{32}$	2 95	$10\frac{1}{2}$	$2\frac{3}{4}$		$2\frac{15}{16}$	11 60	16	$5\frac{1}{4}$	
$1\frac{1}{8}$	3 10	11	$2\frac{7}{8}$		3	12 00	16	$5\frac{1}{4}$	
$1\frac{5}{32}$	3 20	11	$2\frac{7}{8}$		.....	.....	.....	.....
$1\frac{3}{16}$	3 30	11	$2\frac{7}{8}$		.....	.....	.....	.....
$1\frac{7}{32}$	3 40	11	$2\frac{7}{8}$		.....	.....	.....	.....

These reamers will be furnished exact to size, unless otherwise ordered.

Rose Chucking Reamers

With Straight Shanks



No. 120 H

Diameter, Inches.	Price, Each.	Length, Inches.	Length Flutes, Inches.	Diameter, Inches.	Price, Each.	Length, Inches.	Length Flutes, Inches.
$\frac{1}{4}$	\$0 80	6	$1\frac{1}{2}$	$1\frac{7}{32}$	\$2 65	11	$2\frac{7}{8}$
$\frac{9}{32}$	85	6	$1\frac{1}{2}$	$1\frac{1}{4}$	2 70	$11\frac{1}{2}$	3
$\frac{11}{16}$	90	6	$1\frac{1}{2}$	$1\frac{5}{16}$	2 85	$11\frac{1}{2}$	3
$\frac{3}{8}$	95	6	$1\frac{1}{2}$	$1\frac{3}{8}$	3 00	12	$3\frac{1}{4}$
$\frac{7}{8}$	1 00	7	$1\frac{3}{4}$	$1\frac{1}{2}$	3 15	12	$3\frac{1}{4}$
$\frac{1}{2}$	1 05	7	$1\frac{3}{4}$	$1\frac{1}{2}$	3 30	$12\frac{1}{2}$	$3\frac{1}{2}$
$\frac{1}{2}$	1 10	7	$1\frac{3}{4}$	$1\frac{1}{2}$	3 45	$12\frac{1}{2}$	$3\frac{1}{2}$
$\frac{1}{2}$	1 15	7	$1\frac{3}{4}$	$1\frac{5}{8}$	3 60	13	$3\frac{3}{4}$
$\frac{1}{2}$	1 20	8	2	$1\frac{1}{2}$	3 75	13	$3\frac{3}{4}$
$\frac{1}{2}$	1 25	8	2	$1\frac{3}{4}$	3 90	$13\frac{1}{2}$	4
$\frac{1}{2}$	1 30	8	2	$1\frac{3}{4}$	4 05	$13\frac{1}{2}$	4
$\frac{1}{2}$	1 35	8	2	$1\frac{7}{8}$	4 20	14	$4\frac{1}{4}$
$\frac{1}{2}$	1 40	9	$2\frac{1}{4}$	$1\frac{1}{2}$	4 40	14	$4\frac{1}{4}$
$\frac{1}{2}$	1 45	9	$2\frac{1}{4}$	2	4 60	14	$4\frac{1}{4}$
$\frac{1}{2}$	1 50	9	$2\frac{1}{4}$	$2\frac{1}{16}$	4 90	$14\frac{1}{2}$	$4\frac{1}{2}$
$\frac{1}{2}$	1 55	9	$2\frac{1}{4}$	$2\frac{1}{8}$	5 20	$14\frac{1}{2}$	$4\frac{1}{2}$
$\frac{1}{2}$	1 60	$9\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{3}{16}$	5 50	$14\frac{1}{2}$	$4\frac{1}{2}$
$\frac{1}{2}$	1 65	$9\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{4}$	5 80	$14\frac{1}{2}$	$4\frac{1}{2}$
$\frac{1}{2}$	1 70	$9\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{5}{16}$	6 10	15	$4\frac{3}{4}$
$\frac{1}{2}$	1 75	$9\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{3}{8}$	6 40	15	$4\frac{3}{4}$
$\frac{1}{2}$	1 80	10	$2\frac{5}{8}$	$2\frac{1}{2}$	6 80	15	$4\frac{3}{4}$
$\frac{1}{2}$	1 90	10	$2\frac{5}{8}$	$2\frac{1}{2}$	7 20	15	$4\frac{3}{4}$
$\frac{1}{2}$	1 95	10	$2\frac{5}{8}$	$2\frac{9}{16}$	7 50	$15\frac{1}{2}$	5
$\frac{1}{2}$	2 05	10	$2\frac{5}{8}$	$2\frac{5}{8}$	7 80	$15\frac{1}{2}$	5
$\frac{1}{2}$	2 10	$10\frac{1}{2}$	$2\frac{3}{4}$	$2\frac{1}{2}$	8 10	$15\frac{1}{2}$	5
$\frac{1}{2}$	2 20	$10\frac{1}{2}$	$2\frac{3}{4}$	$2\frac{3}{4}$	8 40	$15\frac{1}{2}$	5
$\frac{1}{2}$	2 25	$10\frac{1}{2}$	$2\frac{3}{4}$	$2\frac{1}{2}$	8 80	16	$5\frac{1}{4}$
$\frac{1}{2}$	2 35	$10\frac{1}{2}$	$2\frac{3}{4}$	$2\frac{7}{8}$	9 20	16	$5\frac{1}{4}$
$\frac{1}{2}$	2 40	11	$2\frac{7}{8}$	$2\frac{1}{2}$	9 60	16	$5\frac{1}{4}$
$\frac{1}{2}$	2 50	11	$2\frac{7}{8}$	3	10 00	16	$5\frac{1}{4}$
$\frac{1}{2}$	2 55	11	$2\frac{7}{8}$				

These reamers will be furnished exact to size, unless otherwise ordered.

Three Groove Chucking Reamers

With Taper Shanks



No. 120K

Diameter, Inches.	Price, Each.	Length, Inches.	Length Flute, Inches.	Shank Taper.	Diameter, Inches.	Price, Each.	Length, Inches.	Length Flute, Inches.	Shank Taper.
$\frac{1}{4}$	\$1 70	7	$3\frac{1}{16}$	No. 1	$1\frac{1}{32}$	\$ 7 65	$14\frac{1}{2}$	9	No. 4
$\frac{1}{8}$	1 70	7	$3\frac{1}{16}$		$1\frac{1}{16}$	7 90	$14\frac{1}{2}$	9	
$\frac{3}{32}$	1 70	7	$3\frac{1}{16}$		$1\frac{3}{32}$	8 15	16	$9\frac{1}{4}$	
$\frac{1}{16}$	1 70	7	$3\frac{1}{16}$		$1\frac{1}{4}$	8 40	16	$9\frac{1}{4}$	
$\frac{3}{8}$	1 70	7	$3\frac{1}{16}$		$1\frac{3}{8}$	8 60	16	$9\frac{1}{4}$	
$\frac{1}{2}$	1 75	7	$3\frac{1}{16}$		$1\frac{1}{2}$	8 80	16	$9\frac{1}{4}$	
$\frac{5}{8}$	1 80	7	$3\frac{1}{16}$		$1\frac{3}{4}$	9 00	16	$9\frac{1}{4}$	
$\frac{3}{4}$	1 85	7	$3\frac{1}{16}$		$1\frac{7}{8}$	9 20	16	$9\frac{1}{4}$	
$\frac{7}{8}$	1 90	8	$4\frac{1}{16}$		$1\frac{31}{32}$	9 35	16	$9\frac{1}{4}$	
1	1 95	8	$4\frac{1}{16}$		$1\frac{15}{16}$	9 50	16	$9\frac{1}{4}$	
$1\frac{1}{32}$	2 00	8	$4\frac{1}{16}$		$1\frac{1}{2}$	9 65	16	$9\frac{1}{4}$	
$1\frac{1}{16}$	2 30	8	$4\frac{1}{16}$		2	9 80	16	$9\frac{1}{4}$	
$1\frac{1}{8}$	2 60	$12\frac{1}{4}$	$8\frac{7}{16}$		$2\frac{1}{32}$	10 20	16	$9\frac{1}{8}$	
$1\frac{1}{4}$	2 70	$12\frac{1}{4}$	$8\frac{7}{16}$		$2\frac{1}{16}$	10 60	16	$9\frac{1}{8}$	
$1\frac{3}{8}$	2 75	$12\frac{1}{4}$	$8\frac{7}{16}$		$2\frac{3}{32}$	10 90	16	$9\frac{1}{8}$	
$1\frac{1}{2}$	2 85	$12\frac{1}{4}$	$8\frac{7}{16}$	No. 2	$2\frac{1}{8}$	11 20	16	$9\frac{1}{8}$	
$1\frac{5}{8}$	2 90	$12\frac{1}{4}$	$8\frac{7}{16}$		$2\frac{3}{16}$	11 60	16	$9\frac{1}{8}$	
$1\frac{3}{4}$	3 00	$12\frac{1}{4}$	$8\frac{7}{16}$		$2\frac{1}{2}$	12 00	16	$9\frac{1}{8}$	
$1\frac{7}{8}$	3 05	$12\frac{1}{4}$	$8\frac{7}{16}$		$2\frac{5}{16}$	12 40	16	$9\frac{1}{8}$	
2	3 15	$12\frac{1}{4}$	$8\frac{7}{16}$		$2\frac{3}{8}$	12 80	16	$8\frac{3}{4}$	
$2\frac{1}{32}$	3 20	$12\frac{1}{4}$	$8\frac{7}{16}$		$2\frac{1}{2}$	13 20	16	$8\frac{3}{4}$	
$2\frac{1}{16}$	3 30	$12\frac{1}{4}$	$8\frac{7}{16}$		$2\frac{1}{16}$	13 60	16	$8\frac{3}{4}$	
$2\frac{1}{8}$	3 40	$13\frac{1}{4}$	$8\frac{3}{4}$		$2\frac{1}{8}$	14 00	$16\frac{1}{2}$	$9\frac{1}{4}$	No. 5
$2\frac{1}{4}$	3 50	$13\frac{1}{4}$	$8\frac{3}{4}$		$2\frac{3}{8}$	14 40	$16\frac{1}{2}$	$9\frac{1}{8}$	
$2\frac{1}{2}$	3 60	$13\frac{1}{4}$	$8\frac{3}{4}$		$2\frac{1}{2}$	14 70	$16\frac{1}{2}$	$9\frac{1}{8}$	
$2\frac{5}{8}$	3 70	$13\frac{1}{4}$	$8\frac{3}{4}$		$2\frac{1}{16}$	15 00	$16\frac{1}{2}$	$9\frac{1}{8}$	
$2\frac{3}{4}$	3 80	$13\frac{1}{4}$	$8\frac{3}{4}$	No. 3	$2\frac{1}{2}$	15 30	$16\frac{1}{2}$	$9\frac{1}{8}$	
$2\frac{7}{8}$	3 90	$13\frac{1}{4}$	$8\frac{3}{4}$		$2\frac{1}{2}$	15 60	$16\frac{1}{2}$	9	
3	4 00	$13\frac{1}{4}$	$8\frac{3}{4}$		$2\frac{1}{2}$	15 90	$16\frac{1}{2}$	9	
$3\frac{1}{32}$	4 25	$13\frac{1}{4}$	$8\frac{3}{4}$		$2\frac{1}{2}$	16 20	$16\frac{1}{2}$	9	
$3\frac{1}{16}$	4 50	$13\frac{1}{4}$	$8\frac{3}{4}$		$2\frac{1}{2}$	16 50	17	$9\frac{1}{2}$	
$3\frac{1}{8}$	4 65	$13\frac{1}{4}$	$8\frac{3}{4}$		$2\frac{1}{2}$	16 80	17	$9\frac{3}{8}$	
$3\frac{1}{4}$	4 80	$14\frac{1}{2}$	9		$2\frac{1}{2}$	17 35	17	$9\frac{3}{8}$	
$3\frac{1}{2}$	5 00	$14\frac{1}{2}$	9		$2\frac{1}{2}$	17 90	17	$9\frac{3}{8}$	
$3\frac{3}{4}$	5 20	$14\frac{1}{2}$	9		$2\frac{1}{2}$	18 45	17	$9\frac{3}{8}$	
4	5 35	$14\frac{1}{2}$	9	No. 4	$2\frac{1}{2}$	19 00	17	$9\frac{1}{4}$	
$4\frac{1}{32}$	5 60	$14\frac{1}{2}$	9		$2\frac{1}{2}$	19 50	$17\frac{1}{2}$	$9\frac{3}{4}$	
$4\frac{1}{16}$	5 80	$14\frac{1}{2}$	9		$2\frac{1}{2}$	20 00	$17\frac{1}{2}$	$9\frac{3}{4}$	
$4\frac{1}{8}$	6 00	$14\frac{1}{2}$	9		$2\frac{1}{2}$	20 50	$17\frac{1}{2}$	$9\frac{3}{4}$	
$4\frac{1}{4}$	6 20	$14\frac{1}{2}$	9		$2\frac{1}{2}$	21 00	$17\frac{1}{2}$	$9\frac{5}{8}$	
$4\frac{1}{2}$	6 40	$14\frac{1}{2}$	9		$2\frac{1}{2}$	22 00	$17\frac{1}{2}$	$9\frac{5}{8}$	
$4\frac{3}{4}$	6 65	$14\frac{1}{2}$	9		$2\frac{1}{2}$	23 00	$17\frac{1}{2}$	$9\frac{5}{8}$	
5	6 90	$14\frac{1}{2}$	9		$2\frac{1}{2}$	24 00	$17\frac{1}{2}$	$9\frac{5}{8}$	
$5\frac{1}{32}$	7 15	$14\frac{1}{2}$	9		3	25 00	$17\frac{1}{2}$	$9\frac{1}{2}$	
$5\frac{1}{16}$	7 40	$14\frac{1}{2}$	9						

Special lengths made to order.

Prices on Four-Groove Chucking Reamers on application.

Three Groove Chucking Reamers

With Straight Shanks



No. 120N

Diameter, Inches.	Price, Each.	Length, Inches.	Length Flute, Inches.	Diameter Shank Inches.	Length Shank Inches.	Diameter, Inches.	Price, Each.	Length, Inches.	Length Flute, Inches.	Diameter Shank Inches.	Length Shank Inches.
1/4	\$1 70	6 1/2	4 1/4	1/4	1 1/2	1 1/4	\$ 7 65	14 1/4	10 1/2	1 1/4	3
3/8	1 70	6 1/2	4 1/4	1/4	1 1/2	1 1/4	7 90	14 1/4	10 1/2	1 1/4	3
1/2	1 70	6 1/2	4 1/4	1/4	1 1/2	1 1/4	8 15	14 3/4	11	1 1/4	3
5/8	1 70	6 1/2	4 1/4	1/4	1 1/2	1 1/4	8 40	14 3/4	11	1 1/4	3
3/4	1 70	7 1/4	4 3/4	3/8	1 3/4	1 1/4	8 60	14 3/4	11	1 1/4	3
7/8	1 75	7 1/4	4 3/4	3/8	1 3/4	1 1/4	8 80	14 3/4	11	1 1/4	3
1	1 80	7 1/4	4 3/4	3/8	1 3/4	1 1/4	9 00	15 1/4	11 1/8	1 1/4	3
1 1/8	1 85	7 1/4	4 3/4	3/8	1 3/4	1 1/4	9 20	15 1/4	11 1/8	1 1/4	3
1 1/4	1 90	8 3/8	5 5/8	1/2	2	1 1/4	9 35	15 1/4	11 1/8	1 1/4	3
1 1/2	1 95	8 3/8	5 5/8	1/2	2	1 1/4	9 50	15 1/4	11 1/8	1 1/4	3
1 3/4	2 00	8 3/8	5 5/8	1/2	2	1 1/4	9 65	15 1/4	11 1/8	1 1/4	3
1 7/8	2 30	8 3/8	5 5/8	1/2	2	1 1/4	9 80	15 1/4	11 1/8	1 1/4	3
2	2 60	9 1/2	6 1/2	5/8	2 1/4	2 1/4	10 20	16	11 1/4	1 1/2	3 1/2
2 1/4	2 70	9 1/2	6 1/2	5/8	2 1/4	2 1/4	10 60	16	11 1/4	1 1/2	3 1/2
2 1/2	2 75	9 1/2	6 1/2	5/8	2 1/4	2 1/4	10 90	16	11 1/4	1 1/2	3 1/2
2 3/4	2 85	9 1/2	6 1/2	5/8	2 1/4	2 1/4	11 20	16	11 1/4	1 1/2	3 1/2
2 7/8	2 90	10 1/8	7 1/8	3/4	2 1/4	2 1/4	11 60	16	11 1/4	1 1/2	3 1/2
3	3 00	10 1/8	7 1/8	3/4	2 1/4	2 1/4	12 00	16	11 1/4	1 1/2	3 1/2
3 1/8	3 05	10 1/8	7 1/8	3/4	2 1/4	2 1/4	12 40	16	11 1/4	1 1/2	3 1/2
3 1/4	3 15	10 1/8	7 1/8	3/4	2 1/4	2 1/4	12 80	16	11 1/4	1 1/2	3 1/2
3 1/2	3 20	10 3/4	7 1/2	7/8	2 1/2	2 1/2	13 20	16 1/2	11 1/2	1 1/2	3 1/2
3 3/4	3 30	10 3/4	7 1/2	7/8	2 1/2	2 1/2	13 60	16 1/2	11 1/2	1 1/2	3 1/2
3 7/8	3 40	10 3/4	7 1/2	7/8	2 1/2	2 1/2	14 00	16 1/2	11 1/2	1 1/2	3 1/2
4	3 50	10 3/4	7 1/2	7/8	2 1/2	2 1/2	14 40	16 1/2	11 1/2	1 1/2	3 1/2
4 1/8	3 60	11 3/8	7 7/8	1	2 3/4	2 1/2	14 70	16 1/2	11 1/2	1 1/2	3 1/2
4 1/4	3 70	11 3/8	7 7/8	1	2 3/4	2 1/2	15 00	16 1/2	11 1/2	1 1/2	3 1/2
4 1/2	3 80	11 3/8	7 7/8	1	2 3/4	2 1/2	15 30	16 1/2	11 1/2	1 1/2	3 1/2
4 3/4	3 90	11 3/8	7 7/8	1	2 3/4	2 1/2	15 60	16 1/2	11 1/2	1 1/2	3 1/2
4 7/8	4 00	12	8 1/2	1	2 3/4	2 1/2	15 90	17	11 3/4	1 1/2	3 1/2
5	4 25	12	8 1/2	1	2 3/4	2 1/2	16 20	17	11 3/4	1 1/2	3 1/2
5 1/8	4 50	12	8 1/2	1	2 3/4	2 1/2	16 50	17	11 3/4	1 1/2	3 1/2
5 1/4	4 65	12	8 1/2	1	2 3/4	2 1/2	16 80	17	11 3/4	1 1/2	3 1/2
5 1/2	4 80	12 3/4	9	1 1/4	3	2 1/2	17 35	17	11 3/4	1 1/2	3 1/2
5 3/4	5 00	12 3/4	9	1 1/4	3	2 1/2	17 90	17	11 3/4	1 1/2	3 1/2
5 7/8	5 20	12 3/4	9	1 1/4	3	2 1/2	18 45	17	11 3/4	1 1/2	3 1/2
6	5 35	12 3/4	9	1 1/4	3	2 1/2	19 00	17	11 3/4	1 1/2	3 1/2
6 1/8	5 60	13 1/4	9 1/2	1 1/4	3	2 1/2	19 50	17 1/2	11 1/2	1 3/4	4
6 1/4	5 80	13 1/4	9 1/2	1 1/4	3	2 1/2	20 00	17 1/2	11 1/2	1 3/4	4
6 1/2	6 00	13 1/4	9 1/2	1 1/4	3	2 1/2	20 50	17 1/2	11 1/2	1 3/4	4
6 3/4	6 20	13 1/4	9 1/2	1 1/4	3	2 1/2	21 00	17 1/2	11 1/2	1 3/4	4
6 7/8	6 40	13 3/4	10	1 1/4	3	2 1/2	22 00	17 1/2	11 1/2	1 3/4	4
7	6 65	13 3/4	10	1 1/4	3	2 1/2	23 00	17 1/2	11 1/2	1 3/4	4
7 1/8	6 90	13 3/4	10	1 1/4	3	2 1/2	24 00	17 1/2	11 1/2	1 3/4	4
7 1/4	7 15	14 1/4	10 1/2	1 1/4	3	3	25 00	17 1/2	11 1/2	1 3/4	4
7 1/2	7 40	14 1/4	10 1/2	1 1/4	3						

Special lengths made to order.

Prices on Four-Groove Chucking Reamers on application.

Air Drill Reamers

With Taper Shanks



No. 120 L

For Boiler Makers, Bridge and Ship Builders

Diameter at			Price Each.	Shank Taper.	Length, Inches.	Length of Flute, Inches.	Taper End, Length.
A	B	C					
$\frac{1}{4}$	$\frac{1}{4}$	$\frac{3}{16}$	\$2 75	1	$7\frac{1}{16}$	4	1
$\frac{5}{16}$	$\frac{5}{16}$	$\frac{1}{4}$	2 75	1	$7\frac{1}{16}$	4	1
$\frac{3}{8}$	$\frac{3}{8}$	$\frac{5}{16}$	2 75	1	$7\frac{5}{16}$	4	1
$\frac{7}{16}$	$\frac{7}{16}$	$\frac{3}{8}$	2 75	1	$7\frac{5}{16}$	4	1
$\frac{1}{2}$	$\frac{1}{2}$	$\frac{7}{16}$	2 75	2	$9\frac{1}{16}$	$5\frac{1}{4}$	2
$\frac{9}{16}$	$\frac{9}{16}$	$\frac{11}{16}$	2 80	2	$9\frac{1}{16}$	$5\frac{1}{4}$	2
$\frac{5}{8}$	$\frac{5}{8}$	$\frac{3}{8}$	2 90	2	$10\frac{1}{16}$	$6\frac{1}{4}$	$2\frac{1}{4}$
$\frac{11}{16}$	$\frac{11}{16}$	$\frac{13}{16}$	3 00	3	$11\frac{1}{8}$	$6\frac{5}{8}$	$2\frac{1}{2}$
$\frac{3}{4}$	$\frac{3}{4}$	$\frac{7}{16}$	3 10	3	$12\frac{1}{8}$	$7\frac{5}{8}$	3
$\frac{13}{16}$	$\frac{13}{16}$	$\frac{1}{2}$	3 30	3	$12\frac{1}{8}$	$7\frac{5}{8}$	3
$\frac{7}{8}$	$\frac{7}{8}$	$\frac{9}{16}$	3 50	3	$12\frac{1}{8}$	$7\frac{5}{8}$	3
$\frac{15}{16}$	$\frac{15}{16}$	$\frac{5}{8}$	3 70	3	$12\frac{1}{8}$	$7\frac{5}{8}$	3
1	1	$\frac{11}{16}$	3 90	3	$12\frac{1}{8}$	$7\frac{5}{8}$	3
$1\frac{1}{16}$	$1\frac{1}{16}$	$\frac{3}{4}$	4 00	3	$12\frac{1}{8}$	$7\frac{5}{8}$	3
$1\frac{1}{8}$	$1\frac{1}{8}$	$\frac{13}{16}$	4 30	3	$12\frac{1}{8}$	$7\frac{5}{8}$	3
$1\frac{3}{16}$	$1\frac{3}{16}$	$\frac{7}{8}$	4 60	3	$12\frac{1}{8}$	$7\frac{5}{8}$	3
$1\frac{1}{4}$	$1\frac{1}{4}$	$\frac{15}{16}$	4 90	3	$12\frac{1}{8}$	$7\frac{5}{8}$	3
$1\frac{1}{4}$	$1\frac{1}{4}$	$\frac{15}{16}$	4 90	4	$13\frac{1}{8}$	$7\frac{5}{8}$	3
$1\frac{5}{16}$	$1\frac{5}{16}$	1	5 20	4	$13\frac{1}{8}$	$7\frac{5}{8}$	3
$1\frac{3}{8}$	$1\frac{3}{8}$	$1\frac{1}{16}$	5 60	4	$13\frac{1}{8}$	$7\frac{5}{8}$	3
$1\frac{7}{16}$	$1\frac{7}{16}$	$1\frac{1}{8}$	6 00	4	$13\frac{1}{8}$	$7\frac{5}{8}$	3
$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{3}{8}$	6 40	4	$13\frac{1}{8}$	$7\frac{5}{8}$	3

Reamers from $\frac{1}{4}$ to $1\frac{1}{4}$ have 5 flutes, $1\frac{5}{16}$ to $1\frac{1}{2}$ have 6 flutes. While plainly finished, they are sufficiently accurate for the purpose intended.

The $1\frac{1}{4}$ inch size is furnished with either No. 3 or No. 4 Taper Shank. No. 3 Taper Shank will be sent unless otherwise specified.

Bit Stock Taper Reamer Sets



Set No. 51



Set No. 50

For the convenience of the trade we furnish "Diamond" Bit Stock Taper Reamers packed in sets as shown in cuts above.

Sets No. 51 and 51A are packed in handsome polished oak boxes with hinged tops.

Set No. 51 contains one each, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{11}{16}$, and $\frac{3}{4}$ in.

Price per set, \$7.00.

Set No. 51A contains one each $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$ and $\frac{1}{2}$ in.

Price per set, \$3.00.

Sets Nos. 50 and 50A are packed in neat wooden boxes with sliding cover.

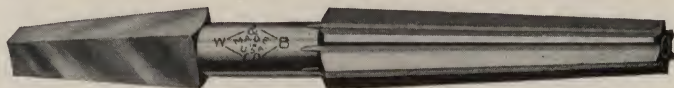
Set No. 50 contains one each $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{11}{16}$ and $\frac{3}{4}$ in.

Price per set, \$6.75.

Set No. 50A contains one each $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{16}$ and $\frac{1}{2}$ in.

Price per set, \$2.80.

Bit Stock Taper Reamers



No. 120B

Taper 1 inch to the foot; diameter at large end of flutes is $\frac{1}{16}$ inch larger than nominal size.

Nominal Size Inches	Whole Length Inches.	Length Flute Inches.	Price Each.	Nominal Size Inches.	Whole Length Inches	Length Flute Inches	Price Each.
$\frac{1}{4}$	$4\frac{1}{2}$	$2\frac{1}{2}$	\$0.45	$\frac{13}{16}$	$7\frac{5}{8}$	$3\frac{1}{2}$	\$1.45
$\frac{5}{16}$	$4\frac{3}{4}$	$2\frac{1}{2}$	.50	$\frac{7}{8}$	8	$3\frac{1}{2}$	1.65
$\frac{3}{8}$	$5\frac{1}{8}$	$3\frac{1}{16}$	.55	$\frac{15}{16}$	8	$3\frac{1}{2}$	1.95
$\frac{7}{16}$	$5\frac{1}{2}$	$3\frac{1}{16}$	.60	1	$8\frac{1}{8}$	$3\frac{1}{2}$	2.20
$\frac{1}{2}$	$5\frac{7}{8}$	$3\frac{1}{16}$	.70	$1\frac{1}{16}$	$8\frac{1}{2}$	$3\frac{3}{4}$	2.35
$\frac{5}{8}$	$6\frac{1}{4}$	$3\frac{1}{16}$	.80	$1\frac{1}{8}$	$8\frac{7}{8}$	$3\frac{3}{4}$	2.45
$\frac{11}{16}$	$6\frac{5}{8}$	$3\frac{1}{16}$	.90	$1\frac{3}{16}$	$9\frac{1}{4}$	$4\frac{1}{16}$	2.60
$\frac{3}{4}$	7	$3\frac{1}{16}$	1.05	$1\frac{1}{4}$	$9\frac{1}{4}$	$4\frac{1}{16}$	2.70
	$7\frac{1}{4}$	$3\frac{1}{16}$	1.20				

Hardened and Ground Steel Mandrels



The Mandrels correspond in size to our Reamers, and will fit holes reamed by them. They are made of good quality tool steel, and are hardened and ground true to centers. The centers are not injured by driving. The Mandrels are slightly tapered, and the size of the Mandrel is stamped at its larger end.

Diameter, Inches.	Price, Each.	Length, Inches.	Diameter, Inches.	Price, Each.	Length, Inches.
$\frac{1}{4}$	\$0 65	$3\frac{3}{4}$	$2\frac{3}{16}$	\$6 00	12
$\frac{5}{16}$	75	4	$2\frac{1}{4}$	6 50	12
$\frac{3}{8}$	85	$4\frac{1}{4}$	$2\frac{5}{16}$	6 90	12
$\frac{7}{16}$	95	$4\frac{1}{2}$	$2\frac{3}{8}$	7 40	12
$\frac{1}{2}$	1 05	5	$2\frac{7}{16}$	7 90	$12\frac{1}{2}$
$\frac{9}{16}$	1 15	$5\frac{1}{4}$	$2\frac{1}{2}$	8 40	$12\frac{1}{2}$
$\frac{5}{8}$	1 25	$5\frac{1}{2}$	$2\frac{9}{16}$	8 90	$12\frac{1}{2}$
$\frac{11}{16}$	1 35	$5\frac{3}{4}$	$2\frac{5}{8}$	9 40	$12\frac{1}{2}$
$\frac{3}{4}$	1 45	6	$2\frac{11}{16}$	9 90	13
$\frac{13}{16}$	1 55	$6\frac{1}{4}$	$2\frac{3}{4}$	10 50	13
$\frac{7}{8}$	1 70	$6\frac{1}{2}$	$2\frac{13}{16}$	11 00	13
$\frac{15}{16}$	1 85	$6\frac{3}{4}$	$2\frac{7}{8}$	11 50	13
1	2 00	7	$2\frac{15}{16}$	12 00	13
$1\frac{1}{16}$	2 10	$7\frac{1}{4}$	3	12 50	13
$1\frac{1}{8}$	2 20	$7\frac{1}{2}$	$3\frac{1}{16}$	13 00	14
$1\frac{3}{16}$	2 30	$7\frac{3}{4}$	$3\frac{1}{8}$	13 40	14
$1\frac{1}{4}$	2 45	8	$3\frac{3}{16}$	13 80	14
$1\frac{5}{16}$	2 60	$8\frac{1}{4}$	$3\frac{1}{4}$	14 10	14
$1\frac{3}{8}$	2 75	$8\frac{1}{2}$	$3\frac{5}{16}$	14 40	15
$1\frac{7}{16}$	2 90	$8\frac{3}{4}$	$3\frac{3}{8}$	14 70	15
$1\frac{1}{2}$	3 10	9	$3\frac{7}{16}$	15 00	15
$1\frac{9}{16}$	3 30	$9\frac{1}{4}$	$3\frac{1}{2}$	15 30	15
$1\frac{5}{8}$	3 50	$9\frac{1}{2}$	$3\frac{9}{16}$	15 60	16
$1\frac{11}{16}$	3 70	$9\frac{3}{4}$	$3\frac{5}{8}$	15 90	16
$1\frac{3}{4}$	3 90	10	$3\frac{11}{16}$	16 20	16
$1\frac{13}{16}$	4 10	$10\frac{1}{4}$	$3\frac{3}{4}$	16 50	16
$1\frac{7}{8}$	4 35	$10\frac{1}{2}$	$3\frac{13}{16}$	16 80	17
$1\frac{15}{16}$	4 60	$10\frac{3}{4}$	$3\frac{7}{8}$	17 20	17
2	4 80	11	$3\frac{15}{16}$	17 60	17
$2\frac{1}{16}$	5 15	$11\frac{1}{2}$	4	18 00	17
$2\frac{1}{8}$	5 60	$11\frac{1}{2}$	.....	.....	.....

Machinists' Hand Taps



Taper



Plug



Bottoming

Diameter	No. of Threads to Inch.					
Standard Size.	Total Length, Inches.	United States Standard.	"V" Standard.	Whitworth Standard.	"V" Threads, also Furnished.	Price, Each.
$\frac{1}{16}$	64	72	60	60, 64	\$0.35
$\frac{5}{64}$	50	56	48	56, 60, 64	.35
$\frac{3}{32}$	40	40	40	48, 50, 54, 60	.35
$\frac{7}{64}$	36	32	32	48	.35
$\frac{1}{8}$	32	24	24	32, 36, 48, 50	.35
$\frac{9}{64}$	32	24	24	32, 36	.35
$\frac{5}{32}$	28	24	24	30, 36, 40	.35
$\frac{11}{64}$	24	20	20	36	.35
$\frac{3}{16}$	18	18	18	30, 32, 36	.35
$\frac{13}{64}$	16	16	16	32	.35
$\frac{7}{32}$	14	14	14	32	.35
$\frac{1}{2}$	12	12	12	32	.35
$\frac{9}{16}$	11	11	11	32	.35
$\frac{5}{8}$	11	11	11	24, 27, 32	.45
$\frac{11}{16}$	10	10	10	20, 24, 27, 32	.50
$\frac{3}{4}$	10	10	10	14, 18, 20, 24, 27	.55
$\frac{13}{16}$	9	9	9	12, 16, 20, 24, 27	.60
$\frac{7}{8}$	9	9	9	13, 14, 16, 20, 24, 27	.70
$\frac{15}{16}$	8	8	8	14, 27	.80
1	8	8	8	10, 12, 20, 24, 27	.90
$1\frac{1}{16}$	7	7	7	10, 12	1.05
$1\frac{1}{8}$	7	7	7	12, 20, 27	1.20
$1\frac{3}{8}$	7	7	7	12	1.40
$1\frac{1}{2}$	7	7	7	10, 12, 27	1.60
$1\frac{3}{4}$	7	7	7	12	1.80
2	7	7	7	12, 27	2.00
$2\frac{1}{4}$	7	7	7	12	2.15
$2\frac{1}{2}$	7	7	7	8, 12	2.25
$2\frac{3}{4}$	7	7	7	.....	2.45
3	7	7	7	12	2.60
$3\frac{1}{4}$	7	7	7	.....	2.80

*We also furnish, at regular list and discount, $\frac{1}{2}$ inch Hand Taps with 12 threads to the inch, United States Standard form.

Continued on next page.

Machinists' Hand Taps—Continued

Diam.	Number of Threads to Inch.					Price, Each.
	Standard Size.	Total Length, Inches.	United States Standard	"V" Standard	Whitworth Standard	
					'V' Threads also Furnished.	
	$1\frac{3}{8}$	$6\frac{1}{16}$	6	6	6	\$3.00
	$1\frac{7}{16}$	$6\frac{1}{16}$	6	6	6	3.25
	$1\frac{1}{2}$	$6\frac{3}{8}$	6	6	6	3.50
	$1\frac{5}{8}$	$6\frac{11}{16}$	$5\frac{1}{2}$	5	5	4.20
	$1\frac{3}{4}$	7	5	5	5	5.00
	$1\frac{7}{8}$	$7\frac{5}{16}$	5	$4\frac{1}{2}$	$4\frac{1}{2}$	5.80
	2	$7\frac{5}{8}$	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	6.70
	$2\frac{1}{8}$	8	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	8.00
	$2\frac{1}{4}$	$8\frac{1}{4}$	$4\frac{1}{2}$	$4\frac{1}{2}$	4	9.20
	$2\frac{3}{8}$	$8\frac{1}{2}$	4	$4\frac{1}{2}$	4	10.50
	$2\frac{1}{2}$	$8\frac{3}{4}$	4	4	4	11.50
	$2\frac{5}{8}$	9	4	4	4	13.00
	$2\frac{3}{4}$	$9\frac{1}{4}$	4	4	$3\frac{1}{2}$	14.00
	$2\frac{7}{8}$	$9\frac{1}{2}$	$3\frac{1}{2}$	4	$3\frac{1}{2}$	15.50
	3	$9\frac{3}{4}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	17.00
	$3\frac{1}{8}$	$9\frac{3}{4}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	18.75
	$3\frac{1}{4}$	10	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{4}$	20.50
	$3\frac{3}{8}$	10	$3\frac{1}{4}$	$3\frac{1}{4}$	$3\frac{1}{4}$	22.00
	$3\frac{1}{2}$	$10\frac{1}{4}$	$3\frac{1}{4}$	$3\frac{1}{4}$	$3\frac{1}{4}$	24.00
	$3\frac{5}{8}$	$10\frac{1}{4}$	$3\frac{1}{4}$	$3\frac{1}{4}$	$3\frac{1}{4}$	26.00
	$3\frac{3}{4}$	$10\frac{1}{2}$	3	3	3	28.50
	$3\frac{7}{8}$	$10\frac{1}{2}$	3	3	3	30.00
	4	$10\frac{3}{4}$	3	3	3	32.50

All orders for Hand Taps to and including $\frac{11}{16}$ inch will be filled with shanks full size of thread. Orders for $\frac{3}{8}$ inch Hand Taps, and larger, will be filled with shanks size of bottom of thread, unless otherwise ordered.

We will furnish, if desired, Hand Taps with shanks the full size of thread on sizes to $\frac{1}{2}$ inch, inclusive.

The following sets of Machinists' Hand Taps are regularly carried in stock:

Right Hand—U. S. Standard, Whitworth and "V" forms, $\frac{3}{16}$ to 4 inches, inclusive.

Left Hand—U. S. Standard, Whitworth and "V" forms, of regular pitch $\frac{1}{4}$ to 1 inch, inclusive.

Over Sizes. Right Hand—U. S. Standard and "V" forms, $\frac{1}{4}$ inch large, $\frac{1}{4}$ to 1 inch, inclusive, $\frac{1}{2}$ inch large, $\frac{1}{4}$ to 4 inches, inclusive.

Over Sizes. Left Hand—In U. S. Standard and sharp "V" forms of standard pitch, $\frac{1}{4}$ inch large, $\frac{3}{16}$ to $\frac{5}{8}$ inch, inclusive, $\frac{1}{2}$ inch large, $\frac{3}{16}$ to 2 inches, inclusive.

All orders will be filled with "V" threads unless otherwise specified.

All sizes, lengths and threads not listed will be considered special and subject to special prices.

Machine Nut Taps

Diam.	No. of Threads to Inch.					Price Each
Stand- ard Size	Total Length Inches	U. S. Stand- ard	"V" Stand- ard	Whitworth Stand- ard	"V" Threads also Furnished	
$\frac{3}{16}$	4½	32	24	24	32	\$ 60
$\frac{1}{4}$	5	20	20	20	24	60
$\frac{5}{16}$	5½	18	18	18	16, 20, 24	70
$\frac{3}{8}$	6	16	16	16	14, 18	80
$\frac{7}{16}$	6½	14	14	14	12, 16	90
$\frac{1}{2}$	7	*13	12	12	13	1 00
$\frac{9}{16}$	7½	12	12	12	14	1 15
$\frac{5}{8}$	8	11	11	11	10, 12	1 30
$\frac{11}{16}$	8½	11	11	11	12	1 45
$\frac{3}{4}$	9	10	10	10	12	1 60
$\frac{13}{16}$	9½	10	10	10	12	1 80
$\frac{7}{8}$	10	9	9	9	10, 12	2 10
$\frac{15}{16}$	10½	9	9	9	12	2 40
1	11	8	8	8	12	2 80
$1\frac{1}{16}$	11	8	8			3 00
$1\frac{1}{8}$	11½	7	7	7	8	3 20
$1\frac{3}{16}$	11½	7	7			3 45
$1\frac{1}{4}$	12	7	7	7		3 70
$1\frac{5}{16}$	12	7	7			3 95
$1\frac{3}{8}$	12½	6	6	6		4 20
$1\frac{7}{16}$	12½	6	6			4 45
$1\frac{1}{2}$	13	6	6	6		4 70
$1\frac{5}{8}$	13½	5½	5	5		5 30
$1\frac{3}{4}$	14	5	5	5		6 00
$1\frac{7}{8}$	14½	5	4½	4½		6 80
2	15	4½	4½	4½		7 70
$2\frac{1}{8}$	15½	4½	4½	4½		9 00
$2\frac{1}{4}$	16	4½	4½	4		10 20
$2\frac{3}{8}$	16½	4	4½	4		11 50
$2\frac{1}{2}$	17	4	4	4		12 50
$2\frac{5}{8}$	17½	4	4	4		14 00
$2\frac{3}{4}$	18	4	4	3½		15 00
$2\frac{7}{8}$	18½	3½	4	3½		16 50
3	19	3½	3½	3½		18 00
$3\frac{1}{8}$	19½	3½	3½	3½		19 75
$3\frac{1}{4}$	19½	3½	3½	3¼		21 50
$3\frac{3}{8}$	20	3¼	3¼	3¼		23 00
$3\frac{1}{2}$	20	3¼	3¼	3¼		25 00
$3\frac{5}{8}$	20½	3¼	3¼	3¼		27 00
$3\frac{3}{4}$	20½	3	3	3		29 50
$3\frac{7}{8}$	21	3	3	3		31 00
4	21	3	3	3		33 50

All orders will be filled with "V" Standard Form threads exact size, unless otherwise specified.

*We also furnish at same list price and discount ½-inch Machine Nut Taps, 12 threads to the inch, U. S. S. Form.

Over sizes furnished in "V" Form and U. S. S. Form ¼-inch large, ¼ to ⅝ inch, inclusive.

Over sizes furnished in "V" Form and U. S. S. Form ½-inch large, ¼ to 4 inches, inclusive.

Machine Nut Taps, Left Hand, with threads of "V" Standard Form, U. S. S. Form and Whitworth Form of standard pitch furnished at regular prices.

All other forms and sizes are special and are subject to special prices.

Machine Screw Taps



Size of Screw Gauge	Standard No. of Threads	Threads also Furnished	Drill for Tapping	Diameter About	Price Each	Price Per Doz.
1	56	60, 64, 72	54		\$0.35	\$4.00
1½	56		53		.35	4.00
2	56	48, 64	49	$\frac{3}{32}$	.35	4.00
3	48	40, 56	46	$\frac{3}{32}$	.35	4.00
4	36	32, 40, 42, 48	43	$\frac{7}{64}$	.35	4.00
5	36	32, 40	35	$\frac{1}{8}$	.35	4.00
6	32	30, 36, 38, 40, 48	33	$\frac{9}{64}$	.35	4.00
7	32	30, 40	28	$\frac{3}{32}$	.35	4.00
8	32	30, 36, 40	28	$\frac{5}{32}$	.35	4.00
9	30	28, 32	24	$\frac{11}{64}$	.35	4.00
10	24	28, 30, 32, 36	24	$\frac{3}{16}$	.35	4.00
11	24	28, 30	18	$\frac{13}{64}$	.35	4.00
12	24	20, 32	17	$\frac{7}{32}$	.35	4.00
13	22	20, 24, 32	7	$\frac{15}{64}$	.38	4.40
14	20	18, 24	6	$\frac{1}{4}$	.38	4.40
15	20	18, 24	4	$\frac{1}{4}$	.38	4.40
16	18	16, 20	3	$\frac{17}{64}$	.38	4.40
18	18	16, 20	$\frac{15}{64}$	$\frac{9}{32}$	.38	4.40
20	16	18	$\frac{17}{64}$	$\frac{5}{16}$	.45	5.30
22	16	18	H	S	.45	5.30
24	16	14, 18	$\frac{19}{64}$	$\frac{3}{8}$	.45	5.30
26	16	14	P	$\frac{13}{32}$	.53	6.30
28	14	16	R	$\frac{7}{16}$	.53	6.30
30	14	16	$\frac{3}{8}$	$\frac{7}{16}$	.53	6.30

Less than six of a size and thread will be charged at rate of single Taps.

These Taps furnished in sets of Taper, Plug, and Bottoming, when desired, at regular prices.

All sizes and threads not listed will be considered special, subject to special prices.

Left hand Taps are special.

Fractional sizes furnished only at Hand Tap list and discount

Tapper Taps



Diam., Inches.	No. of Threads to Inch.				Whole Length, Inches, Price, Each.			
	Length Thread, Inches.	U. S. Standard	"V" Standard	Whit- worth Standard	11	12	14	15
$\frac{1}{4}$	$1\frac{3}{4}$	20	20	20	\$0 70	\$0 75	\$0 80	\$0 90
$\frac{5}{16}$	2	18	18	18	80	85	90	1 00
$\frac{3}{8}$	2	16	16	16	90	95	1 00	1 10
$\frac{7}{16}$	$2\frac{1}{4}$	14	14	14	1 00	1 05	1 15	1 25
$\frac{1}{2}$	$2\frac{1}{4}$	*13	*12	12	1 12	1 15	1 25	1 35
$\frac{9}{16}$	$2\frac{1}{2}$	12	12	12	1 30	1 35	1 45	1 55
$\frac{5}{8}$	$2\frac{1}{2}$	11	11	11	1 45	1 50	1 65	1 75
$\frac{11}{16}$	$2\frac{1}{2}$	11	11	11	1 62	1 70	1 80	1 95
$\frac{3}{4}$	$2\frac{3}{4}$	10	10	10	1 80	1 85	2 00	2 10
$\frac{13}{16}$	$2\frac{3}{4}$	10	10	10	2 05	2 10	2 25	2 35
$\frac{7}{8}$	3	9	9	9	2 35	2 45	2 60	2 75
$\frac{15}{16}$	3	9	9	9	2 70	2 75	3 00	3 15
1	$3\frac{1}{2}$	8	8	8	3 15	3 20	3 50	3 65
$1\frac{1}{8}$	$3\frac{1}{2}$	7	7	7	3 60	3 70	3 95	4 10
$1\frac{1}{4}$	$3\frac{1}{2}$	7	7	7	4 15	4 25	4 50	4 65
$1\frac{3}{8}$	4	6	6	6	4 70	4 80	5 05	5 20
$1\frac{1}{2}$	4	6	6	6	5 30	5 40	5 65	5 80
$1\frac{5}{8}$	$4\frac{1}{2}$	$5\frac{1}{2}$	5	5	5 10	5 25	5 40	5 55
$1\frac{3}{4}$	$4\frac{3}{4}$	5	5	5	5 60	5 85	6 00	6 15
$1\frac{7}{8}$	5	5	$4\frac{1}{2}$	$4\frac{1}{2}$	6 50	6 65	6 80	6 95
2	5	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	7 25	7 40	7 55	7 70

All orders will be filled with "V" Standard Form threads exact size, unless otherwise specified.

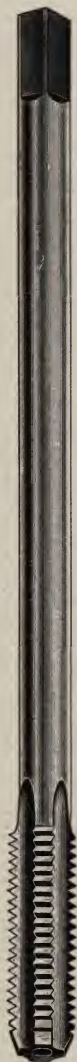
*We also furnish $\frac{1}{2}$ -inch Tapper Taps with 12 threads to the inch U. S. S. Form and 13 threads to the inch "V" Standard Form at regular list and discount.

Over sizes furnished in "V" Form and U. S. S. Form $\frac{1}{4}$ inch large, $\frac{1}{4}$ to $\frac{5}{8}$ inch, inclusive.

Over sizes furnished in "V" Form and U. S. S. Form $\frac{1}{2}$ inch large, $\frac{1}{4}$ to 4 inches, inclusive.

All other forms and sizes are special and are subject to special prices.

Pulley Taps

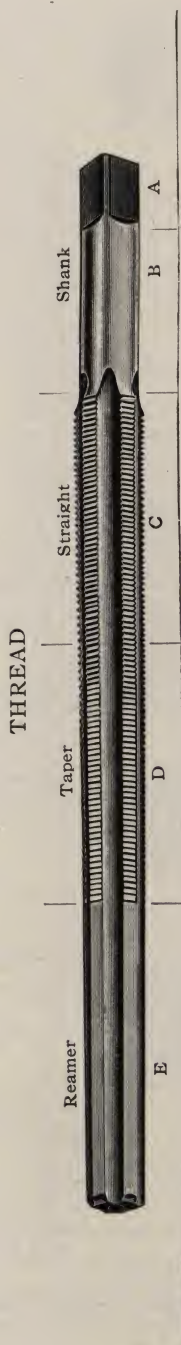


Diam. Inches	No. of Threads to Inch.				PRICE, EACH.									
	U. S. Standard.	"V" Standard.	Whit- worth Standard.		6 in.	8 in.	10 in.	12 in.	14 in.	16 in.	18 in.	20 in.	22 in.	24 in.
$\frac{1}{4}$	20	20	20		\$0.65	\$0.70	\$0.80	\$0.90	.....	.....	.....	.....	.....	.....
$\frac{5}{16}$	18	18	18		.75	.80	1.00	1.20	.....	.....	.....	.....	.....	.....
$\frac{3}{8}$	16	16	16		.80	.90	1.10	1.30	\$1.40	\$1.55	\$1.70	.....	.....	.....
$\frac{7}{16}$	14	14	14		.90	1.00	1.20	1.40	1.50	1.65	1.80	.....	.....	.....
$\frac{1}{2}$	*13	*12	*12		1.00	1.15	1.30	1.45	1.60	1.75	1.90	\$2.05	.....	.....
$\frac{9}{16}$	12	12	12		1.10	1.30	1.45	1.55	1.70	1.85	2.05	2.20	\$2.35	.....
$\frac{5}{8}$	11	11	11		1.20	1.35	1.50	1.60	1.75	1.90	2.10	2.25	2.40	\$2.55
$\frac{11}{16}$	11	11	11		.....	1.45	1.55	1.70	1.90	2.05	2.20	2.35	2.50	2.65
$\frac{3}{4}$	10	10	10		.....	.....	1.60	1.80	2.00	2.15	2.30	2.45	2.60	2.75
$\frac{13}{16}$	10	10	10		.....	.....	1.80	2.00	2.15	2.30	2.45	2.60	2.75	2.90
$\frac{7}{8}$	9	9	9		.....	.....	2.10	2.30	2.50	2.70	2.90	3.10	3.30	3.50
$\frac{15}{16}$	9	9	9		.....	.....	2.30	2.50	2.70	2.90	3.10	3.30	3.50	3.70
1	8	8	8		.....	.....	2.50	2.70	2.90	3.10	3.30	3.50	3.70	3.90

*We also furnish $\frac{1}{2}$ inch Pulley Taps with 12 threads to the inch, United States Standard form, and 13 threads to the inch "V" Standard form at regular list and discount.

"V" form of threads exact size are furnished unless otherwise ordered. All sizes and threads not listed will be considered special and subject to special discounts.

Stay Bolt Taps



Price Each.

Diam. Inches	16 in.	18 in.	21 in.	24 in.	27 in.	30 in.	33 in.	36 in.	39 in.	42 in.	48 in.	54 in.
$\frac{3}{4}$, $\frac{13}{16}$, $\frac{7}{8}$	\$5.60	\$7.20	\$8.00	\$8.80	\$10.90	\$13.00	\$14.00	\$15.00	\$16.50	\$18.00	\$19.00	\$20.00
$\frac{1}{2}$, 1	6.60	8.50	9.35	10.20	12.25	14.25	15.40	16.50	18.15	19.75	21.00	22.25
$1\frac{1}{8}$, $1\frac{1}{4}$	7.60	9.50	10.35	11.20	13.25	15.25	16.40	17.50	20.00	22.00	23.50	25.00
$1\frac{3}{8}$, $1\frac{1}{2}$	9.00	10.50	12.00	12.75	14.75	16.50	18.00	19.50	22.00	24.00	25.50	27.00
$1\frac{5}{8}$, $1\frac{3}{4}$	11.00	12.50	14.00	15.00	17.00	18.50	20.00	21.50	24.00	26.00	28.00	30.00
$1\frac{7}{8}$, $1\frac{1}{2}$	13.00	14.50	16.00	17.00	19.00	20.00	22.00	23.50	26.00	28.00	30.00	32.00

All orders for these Taps should give exact diameter and number of threads per inch, also lengths of parts, A, B, C, D and E.

Usual proportion of regular Taps is as follows: Shank $\frac{1}{8}$; straight thread $\frac{1}{8}$; taper thread $\frac{1}{16}$; reamer $\frac{1}{8}$.

Taps with 12 threads to the inch "V" Standard Form will be sent unless otherwise specified.

Grooved Shank Taps

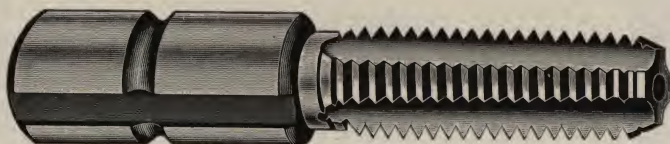


Taper, Plug or Bottoming.
Having Grooved Shanks to be used in Chucks with Grooved Jaws.

Diameter Inches.	No. of Threads to Inch.	Price Each.	Diameter Inches.	No. of Threads to Inch.	Price Each.
$\frac{1}{16}$	24, 32	\$0 35	$\frac{7}{8}$	9	\$1 60
$\frac{1}{4}$	20	45	$\frac{1}{2}$	9	1 80
$\frac{3}{16}$	18	50	1	8	2 00
$\frac{3}{8}$	16	55	$1\frac{1}{8}$	7	2 25
$\frac{7}{16}$	14	60	$1\frac{1}{4}$	7	2 60
$\frac{1}{2}$	12, 13	70	$1\frac{3}{8}$	6	3 00
$\frac{9}{16}$	12	80	$1\frac{1}{2}$	6	3 50
$\frac{5}{8}$	11	90	$1\frac{5}{8}$	5, $5\frac{1}{2}$	4 20
$1\frac{1}{16}$	11	1 05	$1\frac{3}{4}$	5	5 00
$\frac{3}{4}$	10	1 20	$1\frac{7}{8}$	4, $4\frac{1}{2}$	5 80
$\frac{13}{16}$	10	1 40	2	$4\frac{1}{2}$	6 70

Regular pitch and form of "V" Thread will be sent unless otherwise specified.
U. S. S. and Whitworth forms furnished at same list price.

Taps for Beaman & Smith Holders

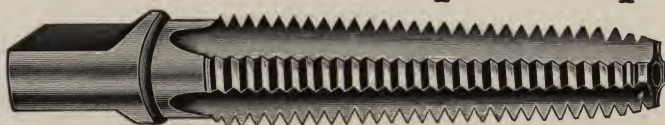


Fitting No. 1 Holder.			Fitting No. 2 Holder.		
Diameter Inches.	No. of Threads to Inch.	Price Each.	Diameter Inches.	No. of Threads to Inch.	Price Each.
$\frac{1}{4}$	20	\$0 45	$\frac{5}{8}$	11	\$0 90
$\frac{5}{16}$	18	50	$\frac{1}{2}$	11	1 05
$\frac{3}{8}$	16	55	$\frac{3}{4}$	10	1 20
$\frac{7}{16}$	14	60	$\frac{1}{2}$	10	1 40
$\frac{1}{2}$	12, 13	70	$\frac{7}{8}$	9	1 60
$\frac{9}{16}$	12	80	$\frac{1}{2}$	9	1 80
$\frac{5}{8}$	11	90	1	8	2 00
.....	.....	.....	$1\frac{1}{8}$	7	2 25
.....	.....	.....	$1\frac{1}{4}$	7	2 60

Prices on Taps fitting No. 2½ and No. 3 Holders given on application. These Taps are used in the Beaman & Smith Patent Safety Drill and Tap Holders.

These Taps will be sent with "V" Threads unless different thread is called for on the order. Threads or sizes not on above list will be considered special and sold at special prices.

Blacksmith's Taper Taps



Diam. Inches.	Threads.	Price, Each.	Diam. Inches.	Threads.	Price, Each.
$\frac{1}{4}$	18, 20, 24	\$0.30	$\frac{3}{4}$	10, 12	\$0.65
$\frac{5}{16}$	16, 18, 20	.30	$\frac{7}{8}$	9, 10	.90
$\frac{3}{8}$	14, 16, 18	.35	1	8	1.25
$\frac{7}{16}$	14, 16, 18	.40	$1\frac{1}{8}$	7, 8	1.50
$\frac{1}{2}$	12, 13, 14, 16	.40	$1\frac{1}{4}$	7, 8	1.75
$\frac{9}{16}$	12, 14	.50	$1\frac{1}{2}$	6	3.00
$\frac{5}{8}$	10, 11, 12	.50			

All sizes and threads not listed are special, and subject to special prices.

Bit Brace Taps

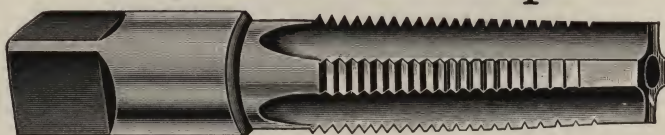


Diameter, Inches.	V Stand, Threads.	Price, Each.
$\frac{3}{16}$	24	\$0.50
$\frac{1}{4}$	20	.50
$\frac{5}{16}$	18	.55
$\frac{3}{8}$	16	.60
$\frac{7}{16}$	14	.70
$\frac{1}{2}$	12, 13	.80

All Bit Brace Taps are sent even size "V" Standard form, unless otherwise ordered.

U. S. Standard furnished at regular list and discount.

Horse Shoe Taps



To Tap for Patent Calks

Diam. Inches.	Thread.	Price, Each.	Diam. Inches.	Thread.	Price, Each.
$\frac{5}{16}$	18	\$0.50	$\frac{1}{2}$	14	\$0.70
$\frac{3}{8}$	18	.55	$\frac{9}{16}$	12	.80
$\frac{7}{16}$	16	.60	$\frac{5}{8}$	12	.90

Makers of Patent Calks have adopted the above sizes and threads, so far as we have been able to learn.

Combined Pipe Taps and Drills



For Tapping Gas and Water Pipes.

Diameter, Inches.	Length, Inches.	Price, Each.	Diameter, Inches.	Length, Inches.	Price, Each.
$\frac{1}{4}$	$3\frac{3}{4}$	\$1 50	$1\frac{1}{4}$	5	\$4 80
$\frac{3}{8}$	4	1 75	$1\frac{1}{2}$	$5\frac{1}{2}$	5 80
$\frac{1}{2}$	$4\frac{1}{4}$	2 20	2	$5\frac{3}{4}$	7 60
$\frac{3}{4}$	$4\frac{1}{2}$	3 00	$2\frac{1}{2}$	$6\frac{1}{2}$	10 00
1	$4\frac{3}{4}$	3 80			

Shanks for sizes $\frac{1}{4}$ to $1\frac{1}{2}$ inches are $\frac{1}{8}$ inch by $\frac{1}{2}$ inch and $1\frac{3}{4}$ inches long.
Shanks for sizes 2 and $2\frac{1}{2}$ inches are 1 inch by $\frac{3}{4}$ inch and 2 inches long.

Brazed Brass Tubing Taps



Right or Left Hand.

Diameter, Inches.	Price, Each.	Threads.	Diameter, Inches.	Price, Each.	Threads.
$\frac{1}{4}$	\$0 45	27	$\frac{5}{8}$	\$0 90	27
$\frac{3}{8}$	50	27	$\frac{3}{4}$	1 20	27
$\frac{1}{2}$	55	27	$\frac{7}{8}$	1 60	27
$\frac{3}{4}$	60	27	1	2 00	27
$1\frac{1}{2}$	70	27			

These Taps are also furnished with English Standard (which is 26 threads per inch) when so ordered.

These Taps cut a straight thread. Right Hand sent unless otherwise ordered.

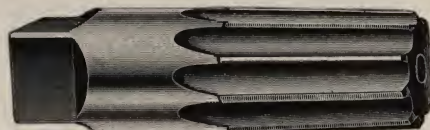
Stove Bolt Taps



Dia., In.	Price, Each.	Price Per Doz.	No. of Threads.	Dia., In.	Price, Each.	Price Per Doz.	No. of Threads.
$\frac{5}{32}$	\$0 35	\$4 00	28	$\frac{1}{4}$	\$0 38	\$4 40	18
$\frac{3}{16}$	35	4 00	24	$\frac{5}{16}$	38	4 40	18
$\frac{7}{32}$	35	4 00	22	$\frac{3}{8}$	45	5 30	16

These Taps are made to correspond in sizes and threads to the American Screw Company's Stove Bolts. Other sizes and threads will be charged as special. Less than six Taps of a size will be charged at rate of single Taps.

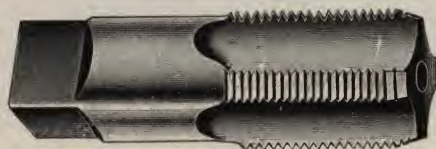
Pipe Taps and Reamers



Diam. Inches.	Threads.	Price, Each.	Diam. Inches.	Threads.	Price, Each.
$\frac{1}{8}$	27	\$1.12	$1\frac{1}{2}$	$11\frac{1}{2}$	\$4.62
$\frac{1}{4}$	18	1.25	2	$11\frac{1}{2}$	6.25
$\frac{3}{8}$	18	1.50	$2\frac{1}{2}$	8	10.50
$\frac{1}{2}$	14	1.87	3	8	15.00
$\frac{3}{4}$	14	2.50	$3\frac{1}{2}$	8	22.00
1	$11\frac{1}{2}$	3.12	4	8	33.00
$1\frac{1}{4}$	$11\frac{1}{2}$	3.75	.....	.....	.....

Pipe Taps with right-hand thread always furnished unless otherwise specified. Left-hand Taps furnished at same price as right-hand. Taps with Whitworth thread furnished at above list price.

Straight Pipe Taps



Diameter, in.	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Price, Each.	\$1.12	\$1.25	\$1.50	\$1.87	\$2.50
Diameter, in.	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	
Price, Each.	\$3.12	\$3.75	\$4.62	\$6.25	

These Taps are straight in threaded part, not tapering as in an ordinary Pipe Tap, and are made of best quality of steel.

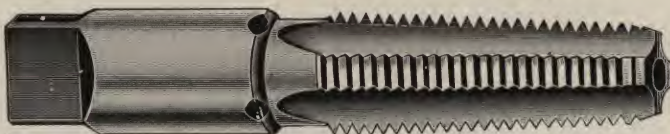
We always send Pipe Taps with right-hand threads, unless order calls for left-hand. Left-hand threads same price.

Boiler Taps



Straight

The full thread of above Taps is straight. The reamer at point is used to size the hole and serves as a gauge for size of drill to be used before Tapping.



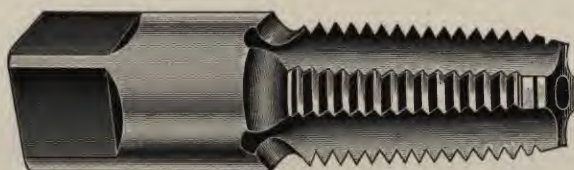
Taper

These taps are slightly Tapered to make a steam tight fit. Diameter given is size of Tap about $\frac{5}{8}$ inch from large end of thread.

Diameter, Inches.	Length, Inches.	Price, Each.	Diameter, Inches.	Length, Inches.	Price, Each.
$\frac{1}{2}$	$3\frac{3}{4}$	\$1 00	$1\frac{5}{8}$	$6\frac{1}{4}$	\$4 00
$\frac{9}{16}$	4	1 15	$1\frac{3}{8}$	$6\frac{1}{2}$	4 30
$\frac{5}{8}$	$4\frac{1}{4}$	1 30	$1\frac{7}{16}$	$6\frac{1}{2}$	4 60
$\frac{11}{16}$	$4\frac{1}{2}$	1 45	$1\frac{1}{2}$	$6\frac{1}{2}$	4 90
$\frac{3}{4}$	$4\frac{3}{4}$	1 60	$1\frac{5}{8}$	$6\frac{1}{2}$	5 10
$\frac{13}{16}$	5	1 80	$1\frac{3}{4}$	$6\frac{1}{2}$	5 40
$\frac{7}{8}$	$5\frac{1}{4}$	2 10	$1\frac{7}{8}$	$6\frac{3}{4}$	5 70
$\frac{15}{16}$	$5\frac{1}{2}$	2 40	2	$6\frac{3}{4}$	6 00
1	$5\frac{3}{4}$	2 80	$2\frac{1}{8}$	$6\frac{3}{4}$	6 50
$1\frac{1}{16}$	$5\frac{3}{4}$	3 00	$2\frac{1}{4}$	$6\frac{3}{4}$	7 00
$1\frac{1}{8}$	6	3 20	$2\frac{3}{8}$	$6\frac{3}{4}$	7 50
$1\frac{3}{16}$	6	3 40	$2\frac{1}{2}$	$6\frac{3}{4}$	8 00
$1\frac{1}{4}$	$6\frac{1}{4}$	3 70	.....	.....	.....

All orders will be filled with 12 threads to the inch V Standard Form, unless otherwise specified. Other sizes and threads will be charged as special.

Short Patch Bolt Taps

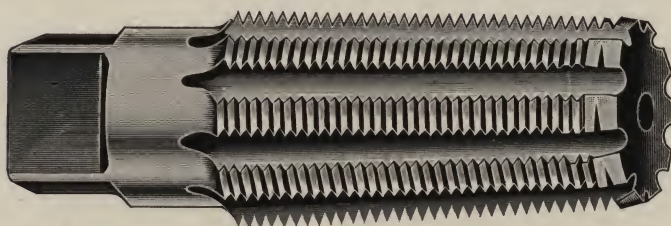


Diameter, Inches.	Length, Inches.	Price, Each.	Diameter, Inches.	Length, Inches.	Price, Each.
$\frac{1}{2}$	3	\$0 70	$\frac{7}{8}$	3	\$1 60
$\frac{9}{16}$	3	80	$\frac{11}{16}$	3	1 80
$\frac{5}{8}$	3	90	1	3	2 00
$\frac{11}{16}$	3	1 05	$1\frac{1}{8}$	3	2 25
$\frac{3}{4}$	3	1 20	$1\frac{1}{4}$	3	2 60
$\frac{13}{16}$	3	1 40			

Short Patch Bolt Taps are furnished as illustrated. These Taps are slightly tapered to make a steam tight fit. Size given is size of Tap at about $\frac{5}{8}$ inch from large end of thread.

All orders will be filled with 12 threads to the inch, V Standard Form.

Pipe Hob Taps for Cutting Dies



Diameter, Inches.	Threads.	Price, Each.	Diameter, Inches.	Threads.	Price, Each.
$\frac{1}{8}$	27	\$1 12	$1\frac{1}{2}$	$11\frac{1}{2}$	\$4 62
$\frac{1}{4}$	18	1 25	2	$11\frac{1}{2}$	6 25
$\frac{3}{8}$	18	1 50	$2\frac{1}{2}$	8	10 50
$\frac{1}{2}$	14	1 87	3	8	15 00
$\frac{3}{4}$	14	2 50	$3\frac{1}{2}$	8	42 00
1	$11\frac{1}{2}$	3 12	4	8	50 00
$1\frac{1}{4}$	$11\frac{1}{2}$	3 75			

Taper $\frac{3}{4}$ inch to the foot.

Fine Flutes, long thread.

Left Hand same price.

Right Hand Taps will be sent unless otherwise ordered.

Long Taper Hob or Master Taps

For Solid Dies



Diameter Inches	Length Inches	No. of Threads to Inch.				Price Each
		U. S. Standard	"V" Standard	Whitworth Standard	"V" Threads also Furnished	
$\frac{1}{4}$	$3\frac{1}{4}$	20	20	20	.....	\$0.75
$\frac{5}{16}$	4	18	18	18	.....	.87
$\frac{3}{8}$	$4\frac{1}{2}$	16	16	16	14	1.00
$\frac{7}{16}$	5	14	14	14	16	1.12
$\frac{1}{2}$	$5\frac{1}{2}$	*13	12	12	13, 14	1.25
$\frac{9}{16}$	6	12	12	12	.....	1.44
$\frac{5}{8}$	$6\frac{1}{2}$	11	11	11	10, 12	1.62
$\frac{11}{16}$	7	11	11	11	12	1.81
$\frac{3}{4}$	$7\frac{1}{2}$	10	10	10	.....	2.00
$\frac{13}{16}$	8	10	10	10	.....	2.25
$\frac{7}{8}$	$8\frac{1}{2}$	9	9	9	.....	2.62
$\frac{15}{16}$	$8\frac{3}{4}$	9	9	9	.....	3.00
1	9	8	8	8	.....	3.50
$1\frac{1}{8}$	$9\frac{1}{4}$	7	7	7	8	4.00
$1\frac{1}{4}$	$9\frac{1}{2}$	7	7	7	.....	4.62
$1\frac{3}{8}$	$9\frac{3}{4}$	6	6	6	.....	5.25
$1\frac{1}{2}$	10	6	6	6	.....	5.87
$1\frac{5}{8}$	$10\frac{1}{4}$	$5\frac{1}{2}$	5	5	$5\frac{1}{2}$	6.62
$1\frac{3}{4}$	$10\frac{1}{2}$	5	5	5	.....	7.50
$1\frac{7}{8}$	$10\frac{3}{4}$	5	$4\frac{1}{2}$	$4\frac{1}{2}$	5	8.50
2	11	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	.....	9.62

These "Long Hob Taps" are mostly used for cutting Solid Bolt Dies.

All orders will be filled with "V" Standard Threads, exact size, unless otherwise specified.

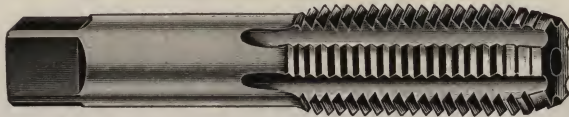
Exact or Rough Iron Sizes in Standard "V," United States Standard and Whitworth Threads at regular list and discount.

All sizes, lengths and threads not listed will be considered special and subject to special prices.

*We also furnish, at same list and discount, $\frac{1}{2}$ inch Hob Taps with 12 threads to the inch, United States Standard form.

Short Plug Hob Taps

For Open Dies



Diameter Inches	Length Inches	No. of Threads to inch.				Price Each
		U. S. Standard	"V" Standard	Whitworth Standard	"V" Threads also Furnished	
$\frac{1}{4}$	$2\frac{3}{4}$	20	20	20	.....	\$0.60
$\frac{5}{16}$	$3\frac{1}{8}$	18	18	18	.....	.70
$\frac{3}{8}$	$3\frac{1}{2}$	16	16	16	14	.80
$\frac{7}{16}$	$3\frac{3}{4}$	14	14	14	16	.90
$\frac{1}{2}$	4	*13	12	12	13, 14	1.00
$\frac{9}{16}$	$4\frac{1}{4}$	12	12	12	.....	1.15
$\frac{5}{8}$	$4\frac{1}{2}$	11	11	11	10, 12	1.30
$\frac{11}{16}$	$4\frac{3}{4}$	11	11	11	12	1.45
$\frac{3}{4}$	5	10	10	10	.....	1.60
$\frac{13}{16}$	$5\frac{1}{4}$	10	10	10	.....	1.80
$\frac{7}{8}$	$5\frac{1}{2}$	9	9	9	.....	2.10
$\frac{15}{16}$	$5\frac{3}{4}$	9	9	9	.....	2.40
1	6	8	8	8	.....	2.80
$1\frac{1}{8}$	$6\frac{1}{4}$	7	7	7	8	3.20
$1\frac{1}{4}$	$6\frac{3}{4}$	7	7	7	.....	3.70
$1\frac{3}{8}$	7	6	6	6	.....	4.20
$1\frac{1}{2}$	$7\frac{1}{4}$	6	6	6	.....	4.70
$1\frac{5}{8}$	8	$5\frac{1}{2}$	5	5	.....	5.30
$1\frac{3}{4}$	$8\frac{1}{2}$	5	5	5	.....	6.00
$1\frac{7}{8}$	9	5	$4\frac{1}{2}$	$4\frac{1}{2}$	.....	6.80
2	$9\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	.....	7.70

These Hobs are intended for cutting Open Dies.

All orders will be filled with "V" Standard Threads, exact size, unless otherwise specified.

Exact or Rough Iron Sizes in Standard "V," United States Standard and Whitworth Threads furnished at regular prices.

All sizes, lengths and threads not listed will be considered special and subject to special prices.

*We also furnish, at regular list and discount, $\frac{1}{2}$ inch Hob Taps with 12 threads to the inch, United States Standard form.

Seller's Hob Taps



Diameter Inches	Length Inches	No. of Threads to Inch.			Price Each
		U. S. Standard	"V" Standard	Whitworth Standard	
$\frac{1}{4}$	$4\frac{1}{4}$	20	20	20	\$ 0.90
$\frac{5}{16}$	$4\frac{1}{2}$	18	18	18	1.05
$\frac{3}{8}$	5	16	16	16	1.20
$\frac{7}{16}$	$5\frac{1}{4}$	14	14	14	1.35
$\frac{1}{2}$	$5\frac{3}{4}$	*13	*12	12	1.50
$\frac{9}{16}$	6	12	12	12	1.75
$\frac{5}{8}$	$6\frac{1}{2}$	11	11	11	1.95
$\frac{11}{16}$	7	11	11	11	2.20
$\frac{3}{4}$	$7\frac{1}{2}$	10	10	10	2.40
$\frac{13}{16}$	8	10	10	10	2.70
$\frac{7}{8}$	$8\frac{1}{2}$	9	9	9	3.15
$\frac{15}{16}$	9	9	9	9	3.60
1	$9\frac{1}{2}$	8	8	8	4.20
$1\frac{1}{8}$	$9\frac{3}{4}$	7	7	7	4.80
$1\frac{1}{4}$	10	7	7	7	5.55
$1\frac{3}{8}$	$10\frac{1}{2}$	6	6	6	6.30
$1\frac{1}{2}$	11	6	6	6	7.05
$1\frac{5}{8}$	$11\frac{1}{2}$	$5\frac{1}{2}$	5	5	7.95
$1\frac{3}{4}$	12	5	5	5	9.00
$1\frac{7}{8}$	$12\frac{1}{2}$	5	$4\frac{1}{2}$	$4\frac{1}{2}$	10.20
2	13	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	11.55

All orders will be filled with "V" Standard Threads, exact size, unless otherwise specified.

All sizes, lengths and threads not listed are special and subject to special prices.

*We also furnish $\frac{1}{2}$ inch Seller's Hob Taps with 12 threads to the inch, United States Standard form, and 13 threads to the inch "V" Standard form, at regular list and discount.

Drill List

For Taps with V-Threads

Diameter of Tap.	Threads per Inch.	Size of Drill.	Diameter of Tap.	Threads per Inch.	Size of Drill.	Diameter of Tap.	Threads per Inch.	Size of Drill.
$\frac{3}{32}$	48	50	$\frac{13}{32}$	16	P	$\frac{31}{32}$	9	$\frac{13}{16}$
$\frac{3}{32}$	56	49	$\frac{13}{32}$	18	$\frac{21}{32}$	1	8	$\frac{7}{16}$
$\frac{3}{32}$	60	48	$\frac{13}{32}$	14	R	$\frac{1}{32}$	8	$\frac{5}{16}$
$\frac{7}{64}$	32	50	$\frac{15}{16}$	16	S	$\frac{1}{16}$	8	$\frac{5}{16}$
$\frac{7}{64}$	36	49	$\frac{15}{16}$	14	$\frac{3}{8}$	$\frac{1}{16}$	8	$\frac{5}{16}$
$\frac{7}{64}$	40	47	$\frac{15}{16}$	16	W	$\frac{1}{8}$	7	$\frac{5}{16}$
$\frac{1}{8}$	32	44	$\frac{1}{2}$	12	$\frac{25}{64}$	$\frac{1}{8}$	8	$\frac{5}{16}$
$\frac{1}{8}$	36	43	$\frac{1}{2}$	13	X	$\frac{1}{8}$	7	$\frac{5}{16}$
$\frac{1}{8}$	40	42	$\frac{1}{2}$	14	$\frac{13}{32}$	$\frac{1}{8}$	8	$\frac{5}{16}$
$\frac{9}{64}$	30	41	$\frac{1}{2}$	12	$\frac{27}{64}$	$\frac{1}{8}$	7	$\frac{5}{16}$
$\frac{9}{64}$	32	40	$\frac{1}{2}$	13	$\frac{27}{64}$	$\frac{1}{8}$	8	$\frac{5}{16}$
$\frac{9}{64}$	36	37	$\frac{1}{2}$	14	$\frac{27}{64}$	$\frac{1}{8}$	7	$\frac{5}{16}$
$\frac{9}{64}$	30	33	$\frac{9}{16}$	12	$\frac{15}{16}$	$\frac{1}{8}$	8	$\frac{5}{16}$
$\frac{9}{64}$	32	32	$\frac{9}{16}$	14	$\frac{15}{16}$	$\frac{1}{8}$	7	$\frac{5}{16}$
$\frac{9}{64}$	36	31	$\frac{9}{16}$	12	$\frac{15}{16}$	$\frac{1}{8}$	8	$\frac{5}{16}$
$\frac{9}{64}$	24	29	$\frac{19}{32}$	14	$\frac{31}{64}$	$\frac{1}{8}$	7	$\frac{5}{16}$
$\frac{9}{16}$	30	27	$\frac{19}{32}$	10	$\frac{1}{2}$	$\frac{1}{8}$	7	$\frac{5}{16}$
$\frac{9}{16}$	32	27	$\frac{5}{8}$	11	$\frac{1}{2}$	$\frac{1}{8}$	6	$\frac{1}{16}$
$\frac{7}{32}$	24	20	$\frac{5}{8}$	12	$\frac{33}{64}$	$\frac{1}{8}$	6	$\frac{1}{16}$
$\frac{7}{32}$	30	16	$\frac{1}{2}$	10	$\frac{33}{64}$	$\frac{1}{8}$	6	$\frac{1}{16}$
$\frac{7}{32}$	32	15	$\frac{1}{2}$	11	$\frac{33}{64}$	$\frac{1}{8}$	6	$\frac{1}{16}$
$\frac{1}{4}$	18	17	$\frac{1}{2}$	12	$\frac{35}{64}$	$\frac{1}{8}$	6	$\frac{1}{16}$
$\frac{1}{4}$	20	14	$\frac{3}{4}$	10	$\frac{35}{64}$	$\frac{1}{8}$	6	$\frac{1}{16}$
$\frac{1}{4}$	24	9	$\frac{3}{4}$	11	$\frac{35}{64}$	$\frac{1}{8}$	5	$\frac{1}{16}$
$\frac{9}{32}$	18	$\frac{13}{16}$	$\frac{3}{4}$	12	$\frac{41}{64}$	$\frac{1}{8}$	5	$\frac{1}{16}$
$\frac{9}{32}$	20	3	$\frac{3}{4}$	10	$\frac{41}{64}$	$\frac{1}{8}$	5	$\frac{1}{16}$
$\frac{1}{16}$	16	1	$\frac{3}{4}$	11	$\frac{41}{64}$	$\frac{1}{8}$	5	$\frac{1}{16}$
$\frac{1}{16}$	18	$\frac{15}{16}$	$\frac{3}{4}$	12	$\frac{43}{64}$	$\frac{1}{8}$	5	$\frac{1}{16}$
$\frac{1}{16}$	20	E	$\frac{3}{4}$	10	$\frac{43}{64}$	$\frac{1}{8}$	5	$\frac{1}{16}$
$\frac{1}{16}$	16	F	$\frac{3}{4}$	10	$\frac{43}{64}$	$\frac{1}{8}$	5	$\frac{1}{16}$
$\frac{1}{16}$	18	$\frac{17}{64}$	$\frac{7}{8}$	9	$\frac{45}{64}$	$\frac{1}{8}$	$\frac{41}{2}$	$\frac{1}{16}$
$\frac{3}{8}$	14	J	$\frac{7}{8}$	10	$\frac{45}{64}$	$\frac{1}{8}$	$\frac{41}{2}$	$\frac{1}{16}$
$\frac{3}{8}$	16	L	$\frac{7}{8}$	9	$\frac{45}{64}$	$\frac{1}{8}$	$\frac{41}{2}$	$\frac{1}{16}$
$\frac{3}{8}$	18	$\frac{19}{64}$	$\frac{7}{8}$	10	$\frac{45}{64}$	$\frac{1}{8}$	$\frac{41}{2}$	$\frac{1}{16}$
$\frac{1}{2}$	14	N	$\frac{1}{16}$	9	$\frac{49}{64}$	2	$\frac{41}{2}$	$\frac{1}{16}$

Drill List

For Taps with U. S. Standard Threads

Size of Tap.	Threads per Inch.	Size of Drill.	Size of Tap.	Threads per Inch.	Size of Drill.	Size of Tap.	Threads per Inch.	Size of Drill.
$\frac{1}{4}$	20	$\frac{3}{16}$	$\frac{7}{8}$	9	$\frac{47}{64}$	$\frac{17}{8}$	5	$\frac{15}{8}$
$\frac{1}{16}$	18	C	1	8	$\frac{47}{64}$	2	$\frac{41}{2}$	$\frac{13}{16}$
$\frac{3}{8}$	16	N	$\frac{1}{8}$	7	$\frac{47}{64}$	$\frac{23}{8}$	$\frac{41}{2}$	$\frac{13}{16}$
$\frac{1}{16}$	14	S	$\frac{1}{4}$	7	$\frac{47}{64}$	$\frac{23}{8}$	$\frac{41}{2}$	$\frac{13}{16}$
$\frac{1}{2}$	13	$\frac{13}{32}$	$\frac{3}{8}$	6	$\frac{1}{2}$	$\frac{23}{8}$	4	$\frac{2}{16}$
$\frac{9}{16}$	12	$\frac{29}{64}$	$\frac{1}{2}$	6	$\frac{1}{2}$	$\frac{23}{8}$	4	$\frac{2}{16}$
$\frac{9}{16}$	11	$\frac{29}{64}$	$\frac{1}{2}$	$\frac{5}{2}$	$\frac{1}{2}$	$\frac{23}{8}$	4	$\frac{2}{16}$
$\frac{3}{4}$	10	$\frac{29}{64}$	$\frac{3}{4}$	5	$\frac{1}{2}$			

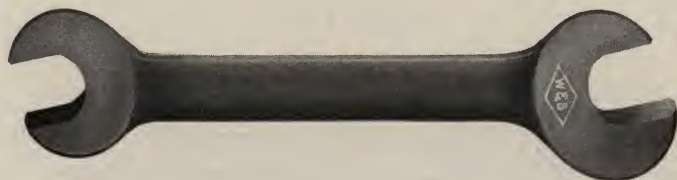
Drill List
For Machine Screw Taps

Size of Tap.	Size of Drill for Outside Diameter of Screw.	Size of Drill for Tapping Hole.	Size of Tap.	Size of Drill for Outside Diameter of Screw.	Size of Drill for Tapping Hole.	Size of Tap.	Size of Drill for Outside Diameter of Screw.	Size of Drill for Tapping Hole.
2x48}	44	50	9x24}	16	30	16x16}	I	12
2x56}		49	9x28}		28	16x18}		8
2x64}		48	9x30}		28	16x20}		7
			9x32}		26			
3x40}	39	49	10x24}	11	26	17x16}	L	8
3x48}		47	10x30}		24	17x18}		4
3x56}		45	10x32}		24	17x20}		3
4x32}	33	46	11x24}	6	21	18x16}	$\frac{13}{64}$	2
4x36}		44	11x28}		20	18x18}		2
4x40}		43	11x30}		19	18x20}		1
5x30}	$\frac{1}{8}$	43	12x20}	$\frac{7}{32}$	24	19x16}	$\frac{5}{16}$	1
5x32}		42	12x22}		20	19x18}		B
5x36}		41	12x24}		19	19x20}		C
5x40}	28	38	12x28}	$\frac{15}{64}$	18		P	
6x30}		38	13x20}		17	20x16}		C
6x32}		37	13x22}		17	20x18}		E
6x36}	24	36	13x24}	$\frac{1}{4}$	15	20x20}	S	F
6x40}		35						
7x28}		34	14x20}		15			
7x30}	19	33	14x22}	F	11	22x16}	$\frac{3}{8}$	H
7x32}		32	14x24}		10	22x18}		J
8x24}		31	15x18}		12	24x14}		L
8x30}		31	15x20}		10	24x16}	$\frac{29}{64}$	M
8x32}		30	15x22}		8	24x18}		N
			15x24}		7			
						26x14}	$\frac{7}{16}$	O
						26x16}		P
						28x14}		R
						28x16}	$\frac{11}{16}$	S
						30x14}		U
						30x16}		V

Drill List
For Pipe Taps

Diameter of Tap or Size of Pipe.	Diameter of Drill.	Diameter of Tap or Size of Pipe.	Diameter of Drill.
$\frac{1}{8}$	$\frac{21}{64}$	$1\frac{1}{4}$	$1\frac{15}{32}$
$\frac{1}{4}$	$\frac{29}{64}$	$1\frac{1}{2}$	$1\frac{33}{64}$
$\frac{3}{8}$	$\frac{19}{32}$	2	$2\frac{3}{16}$
$\frac{1}{2}$	$\frac{23}{32}$	$2\frac{1}{2}$	$2\frac{11}{16}$
$\frac{3}{4}$	$\frac{15}{16}$	3	$3\frac{5}{16}$
1	$1\frac{3}{16}$	$3\frac{1}{2}$	$3\frac{13}{16}$

Unfinished Wrench



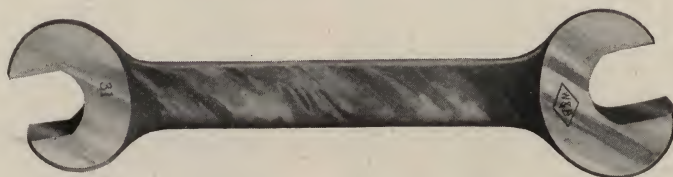
This is a Drop Forged Wrench with or without milled openings unhardened.

Semi-finished Wrench



This is a Drop Forged Wrench having milled openings and hardened, privilege being allowed to brighten the heads.

Finished Wrench



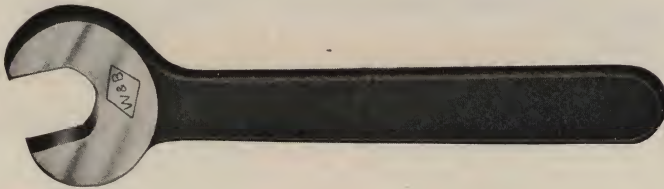
This is a Drop Forged Wrench with milled openings, full polish, hardened and brightened.

All Drop Forged Wrenches will be furnished with milled openings unless otherwise specified.

Engineers' Wrenches

Single Head

15° Angle



No.	Size Bolts, U. S. Standard Nuts.	Openings, Inches.	Extreme Length Inches.	Price, Unfinished, Each.	Price, Semi- finished, Each.	Price, Finished, Each.
00	$\frac{1}{8}$	$\frac{5}{16}$	$2\frac{1}{2}$	\$0 08	\$0 12	\$0 16
0	$\frac{3}{16}$	$\frac{3}{8}$	$2\frac{7}{8}$	09	13	18
1	$\frac{1}{4}$	$\frac{1}{2}$	$3\frac{3}{4}$	10	15	20
2	$\frac{5}{16}$	$\frac{3}{4}$	$4\frac{3}{4}$	12	18	24
3	$\frac{3}{8}$	$\frac{7}{8}$	$5\frac{3}{8}$	14	21	28
4	$\frac{7}{16}$	$\frac{1}{1}$	$6\frac{1}{2}$	17	25	34
5	$\frac{1}{2}$	$\frac{7}{8}$	$7\frac{1}{2}$	20	30	40
6	$\frac{5}{8}$	$\frac{1}{1}$	$8\frac{3}{8}$	25	38	50
7	$\frac{3}{4}$	$1\frac{1}{8}$	$9\frac{1}{4}$	32	48	64
8	$\frac{7}{8}$	$1\frac{1}{4}$	$11\frac{1}{8}$	40	60	80
9	1	$1\frac{1}{2}$	13	50	75	1 00
10	$1\frac{1}{8}$	$1\frac{5}{8}$	$14\frac{7}{8}$	65	98	1 30
11	$1\frac{1}{4}$	$1\frac{3}{4}$	$16\frac{3}{8}$	85	1 28	1 70
12	$1\frac{3}{8}$	2	$18\frac{1}{2}$	1 10	1 65	2 20
13	$1\frac{1}{2}$	$2\frac{1}{8}$	$20\frac{1}{4}$	1 40	2 10	2 80
14	$1\frac{3}{4}$	$2\frac{3}{8}$	$22\frac{1}{4}$	1 75	2 63	3 50
15	$1\frac{7}{8}$	$2\frac{1}{2}$	24	2 10	3 15	4 20
16	2	$2\frac{3}{4}$	$25\frac{3}{8}$	2 50	3 75	5 00
$16\frac{1}{2}$	$2\frac{1}{8}$	$2\frac{7}{8}$	$25\frac{3}{8}$	2 50	3 75	5 00
17	$2\frac{1}{4}$	$3\frac{1}{8}$	$29\frac{1}{2}$	3 50	5 25	7 00
18	$2\frac{3}{8}$	$3\frac{1}{2}$	33	4 75	7 13	9 50
19	$2\frac{1}{2}$	$3\frac{3}{8}$	37	6 50	9 75	13 00
$19\frac{1}{2}$	$2\frac{3}{4}$	$4\frac{1}{4}$	37	6 50	9 75	13 00
20	3	$4\frac{5}{8}$	44	10 50	15 75	21 00
$20\frac{1}{4}$	$3\frac{1}{4}$	5	44	10 50	15 75	21 00
$20\frac{1}{2}$	$3\frac{1}{2}$	$5\frac{3}{8}$	44	10 50	15 75	21 00
$20\frac{3}{4}$	4	$6\frac{1}{8}$	44	10 50	15 75	21 00

See page 285 for finish of Wrenches.

Engineers' Wrenches

Double Head

15° Angle



No.	Size Bolts, U. S. Standard Nuts.	Openings, Inches.	Extreme Length, Inches.	Price, Unfinished, Each.	Price, Semi-finished, Each.	Price, Finished, Each
21	$\frac{1}{8}$ & $\frac{3}{16}$	$\frac{5}{16}$ & $\frac{13}{32}$	$3\frac{1}{4}$	\$0 12	\$0 18	\$0 24
22	$\frac{1}{8}$ & $\frac{1}{4}$	$\frac{5}{16}$ & $\frac{1}{2}$	4	14	21	28
23	$\frac{3}{16}$ & $\frac{1}{4}$	$\frac{13}{32}$ & $\frac{1}{2}$	4	15	23	30
24	$\frac{3}{16}$ & $\frac{5}{16}$	$\frac{13}{32}$ & $\frac{11}{16}$	$4\frac{7}{8}$	17	25	34
25	$\frac{1}{4}$ & $\frac{3}{8}$	$\frac{1}{2}$ & $\frac{11}{16}$	$4\frac{7}{8}$	18	27	36
26	$\frac{1}{4}$ & $\frac{3}{8}$	$\frac{1}{2}$ & $\frac{11}{16}$	$5\frac{1}{8}$	20	30	40
27	$\frac{1}{4}$ & $\frac{3}{8}$	$\frac{1}{2}$ & $\frac{11}{16}$	$5\frac{1}{8}$	21	32	42
28	$\frac{1}{4}$ & $\frac{3}{8}$	$\frac{1}{2}$ & $\frac{11}{16}$	$6\frac{1}{8}$	23	35	46
29	$\frac{3}{8}$ & $\frac{1}{2}$	$\frac{11}{16}$ & $\frac{1}{2}$	$6\frac{1}{8}$	25	38	50
30	$\frac{3}{8}$ & $\frac{1}{2}$	$\frac{11}{16}$ & $\frac{1}{2}$	$7\frac{3}{4}$	28	42	56
31	$\frac{1}{2}$ & $\frac{5}{8}$	$\frac{1}{2}$ & $\frac{1}{2}$	$7\frac{3}{4}$	30	45	60
32	$\frac{1}{2}$ & $\frac{5}{8}$	$\frac{1}{2}$ & $\frac{1}{2}$	$8\frac{3}{4}$	34	51	68
33	$\frac{1}{2}$ & $\frac{5}{8}$	$\frac{1}{2}$ & $\frac{1}{2}$	$8\frac{3}{4}$	36	54	72
34	$\frac{1}{2}$ & $\frac{5}{8}$	$\frac{1}{2}$ & $\frac{1}{2}$	$9\frac{3}{4}$	41	61	82
35	$\frac{1}{2}$ & $\frac{5}{8}$	$\frac{1}{2}$ & $\frac{1}{2}$	$9\frac{3}{4}$	43	65	86
36	$\frac{1}{2}$ & $\frac{5}{8}$	$\frac{1}{2}$ & $\frac{1}{2}$	$11\frac{5}{8}$	50	75	1 00
37	$\frac{5}{8}$ & $\frac{3}{4}$	1 & $\frac{1}{4}$	$11\frac{5}{8}$	53	80	1 06
38	$\frac{5}{8}$ & $\frac{3}{4}$	1 & $\frac{1}{4}$	$13\frac{1}{2}$	62	93	1 24
39	$\frac{3}{4}$ & 1	1 & $\frac{1}{4}$	$13\frac{1}{2}$	65	98	1 30
40	$\frac{3}{4}$ & 1	1 & $\frac{1}{4}$	$15\frac{1}{2}$	78	1 17	1 56
41	$\frac{7}{8}$ & 1	1 & $\frac{1}{4}$	$15\frac{1}{2}$	82	1 23	1 64
42	$\frac{7}{8}$ & 1	1 & $\frac{1}{4}$	$17\frac{3}{8}$	1 00	1 50	2 00
43	1 & $1\frac{1}{8}$	$1\frac{5}{8}$ & 2	$17\frac{3}{8}$	1 08	1 62	2 16
44	1 & $1\frac{1}{4}$	$1\frac{5}{8}$ & 2	$19\frac{3}{8}$	1 27	1 91	2 54
45	$1\frac{1}{8}$ & $1\frac{1}{4}$	$1\frac{13}{16}$ & 2	$19\frac{3}{8}$	1 35	2 03	2 70
46	$1\frac{1}{8}$ & $1\frac{3}{8}$	$1\frac{13}{16}$ & $2\frac{3}{16}$	$21\frac{1}{4}$	1 65	2 48	3 30
47	$1\frac{1}{4}$ & $1\frac{3}{8}$	2 & $2\frac{3}{16}$	$21\frac{1}{4}$	1 75	2 63	3 50
48	$1\frac{1}{4}$ & $1\frac{1}{2}$	2 & $2\frac{3}{8}$	$23\frac{1}{4}$	2 10	3 15	4 20
49	$1\frac{3}{8}$ & $1\frac{1}{2}$	2 & $2\frac{3}{8}$	$23\frac{1}{4}$	2 25	3 38	4 50
50	$1\frac{3}{8}$ & $1\frac{5}{8}$	2 & $2\frac{9}{16}$	$25\frac{1}{8}$	2 65	3 98	5 30
51	$1\frac{1}{2}$ & $1\frac{5}{8}$	$2\frac{3}{8}$ & $2\frac{9}{16}$	$25\frac{1}{8}$	2 85	4 28	5 70
52	$1\frac{1}{2}$ & $1\frac{3}{4}$	$2\frac{3}{8}$ & $2\frac{3}{4}$	$27\frac{1}{8}$	3 30	4 95	6 60
53	$1\frac{5}{8}$ & $1\frac{3}{4}$	2 & $2\frac{3}{4}$	$27\frac{1}{8}$	3 55	5 33	7 10
54	$1\frac{5}{8}$ & 2	$2\frac{1}{2}$ & $3\frac{1}{8}$	$30\frac{7}{8}$	4 15	6 23	8 30
55	$1\frac{3}{4}$ & 2	$2\frac{3}{4}$ & $3\frac{1}{8}$	$30\frac{7}{8}$	4 55	6 83	9 10
56	$1\frac{3}{4}$ & $2\frac{1}{4}$	$2\frac{3}{4}$ & $3\frac{1}{2}$	$34\frac{5}{8}$	5 45	8 18	10 90
57	2 & $2\frac{1}{4}$	$3\frac{1}{8}$ & $3\frac{1}{2}$	$34\frac{5}{8}$	6 15	9 23	12 30

See page 285 for finish of Wrenches.

Hexagon Cap-Screw Wrenches



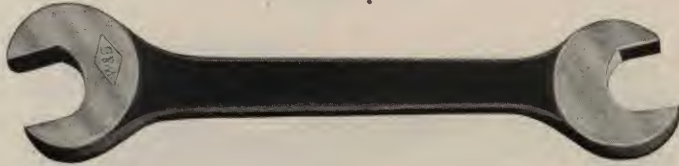
Single Head

15° Angle

Number.	For Hexagon Head Cap Screws; Diameter of Screws, Inches.	Opening Finished, Inches.	Extreme Length, Inches.	Thickness of Head, Inches.	Price, Unfinished, Each.	Price, Semi-Finish- ed, Each.	Price, Finished, Each.
700	$\frac{3}{16}$	$\frac{3}{8}$	$2\frac{7}{8}$	$\frac{7}{32}$	\$0 09	\$0 13	\$0 18
701	$\frac{1}{4}$	$\frac{7}{16}$	$3\frac{3}{4}$	$\frac{1}{4}$	10	15	20
701a	$\frac{5}{16}$	$\frac{1}{2}$	$3\frac{3}{4}$	$\frac{1}{4}$	10	15	20
702	$\frac{3}{8}$	$\frac{9}{16}$	$4\frac{3}{4}$	$\frac{9}{32}$	12	18	24
703	$\frac{7}{16}$	$\frac{5}{8}$	$5\frac{5}{8}$	$\frac{5}{16}$	14	21	28
704	$\frac{1}{2}$	$\frac{3}{4}$	$6\frac{1}{2}$	$\frac{11}{32}$	17	25	34
705	$\frac{9}{16}$	$\frac{13}{16}$	$7\frac{1}{2}$	$\frac{25}{64}$	20	30	40
705a	$\frac{5}{8}$	$\frac{7}{8}$	$7\frac{1}{2}$	$\frac{25}{64}$	20	30	40
706	$\frac{3}{4}$	1	$8\frac{3}{8}$	$\frac{1}{16}$	25	38	50
707	$\frac{7}{8}$	$1\frac{1}{8}$	$9\frac{1}{4}$	$\frac{31}{64}$	32	48	64
708	1	$1\frac{1}{4}$	$11\frac{1}{8}$	$\frac{9}{16}$	40	60	80

See page 285 for finish of Wrenches.

Hexagon Cap-Screw Wrenches



Double Head

15° Angle

Number.	For Hexagon Head Cap-Screws; Diameter of Screws, Inches.	Openings Finished, Inches.	Extreme Length, Inches.	Thickness of Heads, Inches.	Price, Unfinished, Each.	Price, Semi-Finished, Each.	Price, Finished, Each.
723	$\frac{3}{16}$ & $\frac{1}{4}$	$\frac{3}{8}$ & $\frac{7}{16}$	4	$\frac{7}{32}$ & $\frac{1}{4}$	\$0 15	\$0 23	\$0 30
723a	$\frac{3}{16}$ & $\frac{5}{16}$	$\frac{3}{8}$ & $\frac{1}{2}$	4	$\frac{7}{32}$ & $\frac{1}{4}$	15	23	30
724	$\frac{3}{16}$ & $\frac{3}{8}$	$\frac{3}{8}$ & $\frac{9}{16}$	4 $\frac{7}{8}$	$\frac{7}{32}$ & $\frac{3}{32}$	17	25	34
725	$\frac{1}{4}$ & $\frac{5}{16}$	$\frac{7}{16}$ & $\frac{1}{2}$	4 $\frac{7}{8}$	$\frac{1}{4}$ & $\frac{3}{32}$	18	27	36
725a	$\frac{1}{4}$ & $\frac{3}{8}$	$\frac{7}{16}$ & $\frac{9}{16}$	4 $\frac{7}{8}$	$\frac{1}{4}$ & $\frac{3}{32}$	18	27	36
725b	$\frac{5}{16}$ & $\frac{3}{8}$	$\frac{1}{2}$ & $\frac{9}{16}$	4 $\frac{7}{8}$	$\frac{1}{4}$ & $\frac{3}{32}$	18	27	36
726	$\frac{5}{16}$ & $\frac{7}{16}$	$\frac{1}{2}$ & $\frac{5}{8}$	5 $\frac{7}{8}$	$\frac{1}{4}$ & $\frac{5}{16}$	20	30	40
727	$\frac{3}{8}$ & $\frac{7}{16}$	$\frac{9}{16}$ & $\frac{5}{8}$	5 $\frac{7}{8}$	$\frac{3}{32}$ & $\frac{5}{16}$	21	32	42
728	$\frac{3}{8}$ & $\frac{1}{2}$	$\frac{9}{16}$ & $\frac{3}{4}$	6 $\frac{7}{8}$	$\frac{3}{32}$ & $\frac{11}{32}$	23	35	46
729	$\frac{7}{16}$ & $\frac{1}{2}$	$\frac{5}{8}$ & $\frac{3}{4}$	6 $\frac{7}{8}$	$\frac{1}{8}$ & $\frac{11}{32}$	25	38	50
730	$\frac{7}{16}$ & $\frac{9}{16}$	$\frac{5}{8}$ & $\frac{13}{16}$	7 $\frac{3}{4}$	$\frac{1}{8}$ & $\frac{23}{64}$	28	42	56
731	$\frac{1}{2}$ & $\frac{9}{16}$	$\frac{3}{4}$ & $\frac{13}{16}$	7 $\frac{3}{4}$	$\frac{11}{32}$ & $\frac{23}{64}$	30	45	60
731a	$\frac{1}{2}$ & $\frac{5}{8}$	$\frac{3}{4}$ & $\frac{7}{8}$	7 $\frac{3}{4}$	$\frac{11}{32}$ & $\frac{23}{64}$	30	45	60
731b	$\frac{9}{16}$ & $\frac{5}{8}$	$\frac{13}{16}$ & $\frac{7}{8}$	7 $\frac{3}{4}$	$\frac{11}{32}$ & $\frac{23}{64}$	30	45	60
732	$\frac{1}{2}$ & $\frac{3}{4}$	$\frac{3}{4}$ & 1	8 $\frac{3}{4}$	$\frac{11}{32}$ & $\frac{7}{16}$	34	51	68
732a	$\frac{9}{16}$ & $\frac{3}{4}$	$\frac{13}{16}$ & 1	8 $\frac{3}{4}$	$\frac{11}{32}$ & $\frac{7}{16}$	34	51	68
733	$\frac{5}{8}$ & $\frac{3}{4}$	$\frac{7}{8}$ & 1	8 $\frac{3}{4}$	$\frac{23}{64}$ & $\frac{7}{16}$	36	54	72
734	$\frac{5}{8}$ & $\frac{7}{8}$	$\frac{7}{8}$ & 1 $\frac{1}{8}$	9 $\frac{3}{4}$	$\frac{23}{64}$ & $\frac{31}{64}$	41	61	82
735	$\frac{3}{4}$ & $\frac{7}{8}$	1 & 1 $\frac{1}{8}$	9 $\frac{3}{4}$	$\frac{7}{16}$ & $\frac{31}{64}$	43	65	86
736	$\frac{3}{4}$ & 1	1 & 1 $\frac{1}{4}$	11 $\frac{5}{8}$	$\frac{7}{16}$ & $\frac{9}{16}$	50	75	1 00
737	$\frac{7}{8}$ & 1	1 $\frac{1}{8}$ & 1 $\frac{1}{4}$	11 $\frac{5}{8}$	$\frac{31}{64}$ & $\frac{9}{16}$	53	80	1 06

See page 285 for finish of Wrenches.

Double Head "S" Wrenches

22½° Angle



No.	For U.S. Std. Nuts	For Set Screws	For Square Head Screws	For Hexagon Head Cap Screws	For Hexagon Head Cap Screws	Openings Inches	Extreme Length Inches	Thickness of Heads	Price Unfinished Each	Price Semi-Finished Each	Price Finished Each	No.
900	...	1/4 & 1/8	...	...	...	1/4 & 1/8	3 1/2	1 & 1/8	\$0.09	\$0.14	\$0.18	900
901	...	1/4 & 3/16	...	...	...	1/4 & 3/16	3 1/2	1 & 1/8	.09	.14	.18	901
902	...	1/4 & 1/16	...	...	...	1/4 & 1/16	3 1/2	1 & 1/8	.09	.14	.18	902
903	...	5/16 & 3/8	...	...	...	5/16 & 3/8	3 1/2	1 & 1/8	.09	.14	.18	903
904	1/8 & 1/4	...	...	...	...	...	3 1/2	1 & 1/8	.09	.14	.18	904
905	...	5/16 & 1/16	...	...	...	...	3 1/2	1 & 1/8	.09	.14	.18	905
906	1/8 & 1/4	...	...	...	...	...	3 1/2	1 & 1/8	.09	.14	.18	906
907	...	...	...	...	...	...	3 1/2	1 & 1/8	.09	.14	.18	907
908	...	...	...	...	...	...	3 1/2	1 & 1/8	.09	.14	.18	908
909	1/16 & 1/4	...	...	...	...	...	3 1/2	1 & 1/8	.09	.14	.18	909
910	...	3/8 & 1/16	1/4 & 1/16	...	...	...	4 5/8	1 & 1/8	.12	.18	.24	910
911	...	3/8 & 1/2	1/4 & 1/2	...	...	...	4 5/8	1 & 1/8	.12	.18	.24	911
912	1/16 & 1/8	1/16 & 1/2	1/8 & 3/8	...	...	...	4 5/8	1 & 1/8	.12	.18	.24	912
913	...	1/16 & 1/2	1/8 & 3/8	1/4 & 1/8	...	...	4 5/8	1 & 1/8	.12	.18	.24	913
914	...	...	...	1/4 & 3/8	...	...	4 5/8	1 & 1/8	.12	.18	.24	914
915	...	...	...	1/8 & 3/8	...	...	4 5/8	1 & 1/8	.12	.18	.24	915
916	...	...	...	1/8 & 1/16	...	...	4 5/8	1 & 1/8	.12	.18	.24	916
917	1/4 & 1/8	...	...	...	...	...	4 5/8	1 & 1/8	.12	.18	.24	917
918	1/4 & 3/8	...	...	...	...	...	4 5/8	1 & 1/8	.12	.18	.24	918
919	...	1/16 & 1/8	1/16 & 1/16	...	...	...	5 7/8	1 & 1/8	.16	.24	.32	919
920	...	1/2 & 1/8	3/8 & 1/16	...	...	...	5 7/8	1 & 1/8	.16	.24	.32	920
921	...	1/2 & 5/8	3/8 & 1/2	...	...	...	5 7/8	1 & 1/8	.16	.24	.32	921
922	...	1/2 & 3/4	...	...	...	...	5 7/8	1 & 1/8	.16	.24	.32	922
923	...	1/8 & 5/8	1/16 & 5/8	3/8 & 1/16	...	...	5 7/8	1 & 1/8	.16	.24	.32	923
924	...	...	1/16 & 1/16	...	...	...	5 7/8	1 & 1/8	.16	.24	.32	924
924A	...	1/16 & 3/4	...	...	...	...	5 7/8	1 & 1/8	.16	.24	.32	924A
925	...	...	...	3/8 & 1/2	...	...	5 7/8	1 & 1/8	.16	.24	.32	925
926	1/16 & 3/8	...	...	...	...	...	5 7/8	1 & 1/8	.16	.24	.32	926
927	...	...	...	...	...	...	5 7/8	1 & 1/8	.16	.24	.32	927
927A	...	5/8 & 3/4	...	...	...	...	5 7/8	1 & 1/8	.16	.24	.32	927A

Double Head "S" Wrenches—Continued

22½° Angle



No.	For U. S. Std. Nuts & Bolts	For Set Screws	For Square Head Cap Screws	For Hexagon Head Cap Screws	Openings	Extreme Length	Thickness of Heads	Price Unfinished Each	Price Semi-Finished Each	Price Finished Each	No.
928	1/4 & 1/2	...	1/2 & 5/8	1/8 & 1/4	1/2 & 3/4	5 7/8	1/4 & 1/2	\$0.16	\$0.24	\$0.32	928
929	...	...	1/2 & 5/8	1/8 & 1/4	5/8 & 3/4	5 7/8	1/4 & 1/2	.16	.24	.32	929
930	...	...	1/2 & 5/8	1/8 & 1/4	5/8 & 3/4	5 7/8	1/4 & 1/2	.16	.24	.32	930
931	...	...	1/2 & 5/8	1/8 & 1/4	5/8 & 3/4	5 7/8	1/4 & 1/2	.16	.24	.32	931
932	3/8 & 1/2	5/8 & 7/8	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	932
933	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	933
934	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	934
935	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	935
936	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	936
937	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	937
938	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	938
939	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	939
940	1/2 & 1/2	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	940
941	1/2 & 1/2	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	941
942	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	942
943	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	943
944	1/2 & 1/2	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	944
945	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	945
946	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	946
947	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	947
948	1/2 & 5/8	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	948
949	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	949
950	1/2 & 5/8	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	950
951	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	951
952	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	952
953	1/2 & 3/4	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	953
954	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	954
955	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	955
956	5/8 & 3/4	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	956
957	...	...	1/2 & 5/8	1/8 & 1/4	1 1/8 & 7/8	5 7/8	1/4 & 1/2	.16	.24	.32	957

Double Head "S" Wrenches

22 1/2° Angle



No.	Size of Openings, Inches.	Thickness of Head, Inches.	Length Over All, Inches.	Price Unfinished, Each.	Price Semi-Finished, Each.	Price Finished, Each
220	$\frac{3}{8}$ & $\frac{7}{16}$	$\frac{1}{4}$	4	\$0 10	\$0 15	\$0 20
221	$\frac{1}{2}$ & $\frac{9}{16}$	$\frac{5}{16}$	5	15	23	30
222	$\frac{3}{4}$ & $\frac{13}{16}$	$\frac{3}{8}$	6	20	30	40
223	$\frac{7}{8}$ & 1	$\frac{7}{16}$	7	25	38	50
224	1 & $1\frac{1}{8}$	$\frac{1}{2}$	8	30	45	60
225	$1\frac{3}{16}$ & $1\frac{1}{4}$	$\frac{9}{16}$	9	35	53	70

Check-Nut Wrenches

Double Head

15° Angle



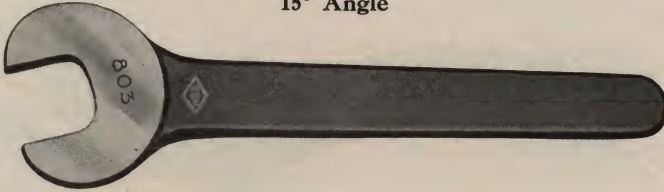
No.	Size Bolts U. S. Standard Nuts, Inches.	Openings, Inches.	Extreme Length, Inches.	Thickness of Heads, Inches.	Price Unfinished, Each.	Price Semi-Finished, Each.	Price Finished, Each.
97 1/2	$\frac{3}{4}$ & $\frac{7}{8}$	$1\frac{1}{4}$ & $1\frac{7}{16}$	8	$\frac{1}{2}$	\$0 43	\$0 65	\$0 86

See page 285 for finish of Wrenches.

Check Nut Wrenches

Single Head

15° Angle



No.	For U. S. Standard Nuts, Size Bolts, In.	Opening Milled, Inches.	Extreme Length, Inches.	Thickness of Head, Inches.	Price Unfinished, Each.	Price, Semi-Finished, Each.	Price Finished, Each.
800	$\frac{5}{16}$	$\frac{19}{32}$	$4\frac{1}{4}$	$\frac{11}{64}$	\$0 11	\$0 17	\$0 22
801	$\frac{3}{8}$	$\frac{11}{16}$	$5\frac{1}{8}$	$\frac{3}{16}$	13	20	26
802	$\frac{7}{16}$	$\frac{25}{32}$	$5\frac{7}{8}$	$\frac{7}{32}$	15	23	30
803	$\frac{1}{2}$	$\frac{7}{8}$	$6\frac{5}{8}$	$\frac{1}{4}$	18	27	36
804	$\frac{9}{16}$	$\frac{33}{32}$	$7\frac{3}{8}$	$\frac{9}{32}$	22	33	44
805	$\frac{5}{8}$	$1\frac{1}{16}$	$8\frac{1}{4}$	$\frac{5}{16}$	28	42	56
806	$\frac{3}{4}$	$1\frac{1}{4}$	10	$\frac{3}{8}$	36	54	72
807	$\frac{7}{8}$	$1\frac{7}{8}$	$11\frac{1}{2}$	$\frac{7}{16}$	46	69	92
808	1	$1\frac{5}{8}$	$13\frac{1}{4}$	$\frac{1}{2}$	60	90	1 20

Check Nut Wrenches

Double Head

15° Angle



No.	For U. S. Standard Nuts, Size Bolts, Inches.	Openings Milled, Inches.	Extreme Length, Inches.	Thickness of Heads, Inches.	Price Unfinished, Each.	Price, Semi- Finished, Each.	Price, Finished, Each.
825	$\frac{3}{8}$ & $\frac{7}{16}$	$\frac{11}{16}$ & $\frac{23}{32}$	$6\frac{7}{8}$	$\frac{3}{16}$ & $\frac{7}{32}$	\$0 25	\$0 38	\$0 50
826	$\frac{3}{8}$ & $\frac{1}{2}$	$\frac{11}{16}$ & $\frac{23}{32}$	.....	.....	25	38	50
827	$\frac{1}{2}$ & $\frac{1}{2}$	$\frac{11}{16}$ & $\frac{23}{32}$	.....	.....	25	38	50
828	$\frac{1}{2}$ & $\frac{9}{16}$	$\frac{11}{16}$ & $\frac{23}{32}$	$8\frac{1}{2}$	$\frac{7}{32}$ & $\frac{9}{32}$	33	50	66
829	$\frac{1}{2}$ & $\frac{5}{8}$	$\frac{11}{16}$ & $\frac{23}{32}$	.....	.....	33	50	66
830	$\frac{1}{2}$ & $\frac{5}{8}$	$\frac{11}{16}$ & $\frac{23}{32}$	.....	.....	33	50	66
831	$\frac{9}{16}$ & $\frac{5}{8}$	$\frac{11}{16}$ & $\frac{23}{32}$	$10\frac{3}{8}$	$\frac{9}{32}$ & $\frac{5}{16}$	44	66	88
832	$\frac{9}{16}$ & $\frac{3}{4}$	$\frac{11}{16}$ & $\frac{23}{32}$	.....	.....	44	66	88
833	$\frac{5}{8}$ & $\frac{3}{4}$	$\frac{11}{16}$ & $\frac{23}{32}$	.....	.....	44	66	88
834	$\frac{5}{8}$ & $\frac{7}{8}$	$\frac{11}{16}$ & $\frac{23}{32}$	$12\frac{5}{8}$	$\frac{5}{16}$ & $\frac{7}{16}$	60	90	1 20
835	$\frac{3}{4}$ & $\frac{7}{8}$	$\frac{11}{16}$ & $\frac{23}{32}$	.....	.....	60	90	1 20
836	$\frac{3}{4}$ & 1	$\frac{11}{16}$ & $\frac{23}{32}$	.....	.....	60	90	1 20

See page 285 for finish of Wrenches.

General Purpose Wrenches

22½° Angle



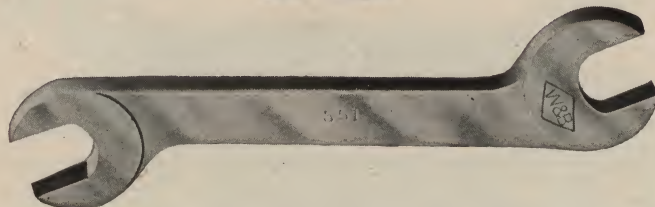
No.	Manufacturers' Standard Nuts, Size Bolts, Inches.	Openings Finished, Inches.	Extreme Length, Inches.	Thickness of Heads, Inches.	Price Unfinished, Each.	Price Semi-Finished, Each.	Price Finished, Each.
500	$\frac{3}{16} \& \frac{1}{4}$	$\frac{3}{8} \& \frac{1}{2}$	6¼	$\frac{7}{32}$	\$0 13	\$0 20	\$0 26
501	$\frac{1}{4} \& \frac{5}{16}$	$\frac{1}{2} \& \frac{5}{8}$	7⅞	$\frac{1}{4}$	17	25	34
502	$\frac{5}{16} \& \frac{3}{8}$	$\frac{5}{8} \& \frac{3}{4}$	8¼	$\frac{5}{16}$	22	33	44
503	$\frac{3}{8} \& \frac{7}{16}$	$\frac{3}{4} \& \frac{7}{8}$	9¼	$\frac{3}{8}$	28	42	56
504	$\frac{7}{16} \& \frac{1}{2}$	$\frac{7}{8} \& 1$	10⅜	$\frac{1}{2}$	34	51	68

For use in erecting or dismantling plows, carriages, wagons, etc., and for general service where a light and long wrench is desired.

For General Purpose Wrenches in sets see next page.

Double Head Angle Wrenches

22½° Angle

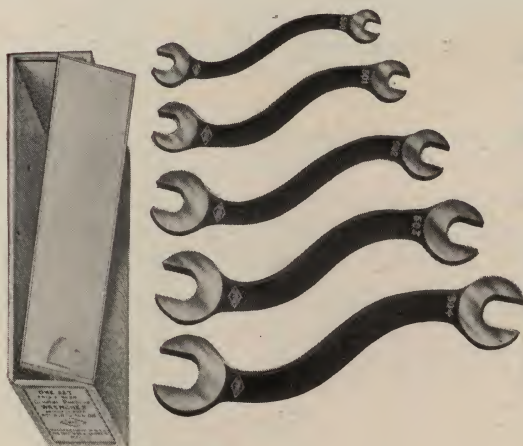


No.	Length, Inches.	Thickness of Heads Inches	For Standard Hex. Nuts for Bolts.	UNFINISHED, Milled Openings.		Openings for Semi-Finished and Finished.	Price Semi-Finished, Each.	Price Finished, Each.
				Size of Openings.	Price.			
550	4½	¼	$\frac{3}{16} \& \frac{1}{4}$	$\frac{3}{8} \& \frac{7}{16}$	\$0 15	$\frac{3}{8} \& \frac{1}{2}$	\$0 23	\$0 30
551	5¾	$\frac{5}{32}$	$\frac{5}{16} \& \frac{3}{8}$	$\frac{9}{16} \& \frac{5}{8}$	20	$\frac{11}{16} \& \frac{1}{2}$	30	40
552	7	$\frac{5}{16}$	$\frac{3}{8} \& \frac{1}{2}$	$\frac{11}{16} \& \frac{13}{16}$	25	$\frac{11}{16} \& \frac{7}{8}$	38	50
553	8	$\frac{3}{16}$	$\frac{7}{16} \& \frac{9}{16}$	$\frac{3}{4} \& \frac{13}{16}$	30	$\frac{11}{16} \& \frac{3}{4}$	45	60
554	9¼	$\frac{3}{8}$	$\frac{9}{16} \& \frac{5}{8}$	$\frac{7}{8} \& 1$	35	$\frac{3}{4} \& 1 \frac{1}{16}$	53	70
555	10½	$\frac{1}{2}$	$\frac{5}{8} \& \frac{7}{8}$	$1 \frac{1}{16} \& 1 \frac{5}{16}$	40	$1 \frac{1}{16} \& 1 \frac{1}{8}$	60	80

For Double Head Angle Wrenches in sets see next page.

See page 285 for finish of Wrenches.

General Purpose Wrench Sets



Our General Purpose Wrenches are furnished in sets consisting of one each Nos. 500, 501, 502, 503 and 504, in either Finished, Semi-Finished or Unfinished.

Each set is packed in a neat wooden box as shown in cut.

PRICES:

Finished, per set.....\$2.45

Semi-Finished, per set..... 1.85

Unfinished, per set..... 1.30

See page 285 for finish of Wrenches.

For Prices in Bulk see page 294.

Double Head Angle Wrench Sets

Our Double Head Angle Wrenches are furnished in sets consisting of one each Nos. 550, 551, 552, 553, 554 and 555, either Finished, Semi-Finished or Unfinished.

Each set packed in neat wooden box as shown above.

PRICES:

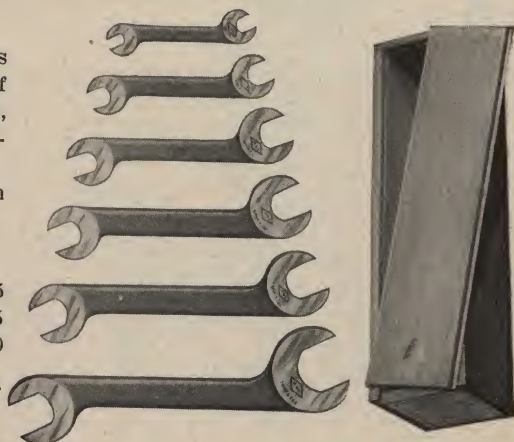
Finished, per set.....\$3.45

Semi-Finished, per set..... 2.65

Unfinished, per set..... 1.80

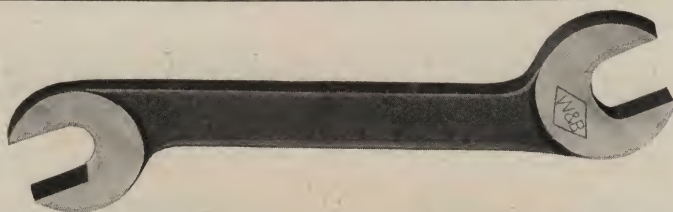
See page 285 for finish of Wrenches.

For Prices in Bulk see page 294.



Double Head Angle Wrenches

22½° Angle



Number.	NUTS FOR U. S. S. BOLTS.		SET SCREWS.		SQ. HEAD CAP SCREWS.		HEX. HEAD CAP SCREWS.		Extreme Length, Inches.	Thickness of Heads, Inches.	Price Unfinished, Each.	Price, Semi-Finished, Each.	Price Finished, Each.
	Bolt Sizes, Inches.	Milled Openings for Nuts, Inches.	Diam. of Screw, Inches.	Milled Openings for Heads, Inches.	Diam. of Screw, Inches.	Milled Openings for Heads, Inches.	Diam. of Screw, Inches.	Milled Openings for Heads, Inches.					
600	1/16—1/4	3/32—1/2	3/8—1 1/8	3/8—1 1/8	1/4—1 1/8	3/8—1 1/8	1/8—1 1/4	3/8—1 1/8	4 1/2	1 1/4	\$0 15	\$0 23	\$0 30
601	1/8—1/4	1/16—1/2	3/8—1 1/2	3/8—1 1/2	1/4—1 1/2	3/8—1 1/2	1/8—1 1/4	3/8—1 1/2	4 1/2	1 1/4	\$0 15	\$0 23	\$0 30
602	1/8—1/4	1/16—1/2	1/2—1 1/2	1/2—1 1/2	1/4—1 1/2	1/2—1 1/2	1/8—1 1/4	1/2—1 1/2	4 1/2	1 1/4	\$0 15	\$0 23	\$0 30
603	1/8—1/4	1/16—1/2	1/2—1 1/2	1/2—1 1/2	3/8—1 1/2	1/2—1 1/2	1/8—1 1/4	1/2—1 1/2	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
604	1/4—1 1/8	1/2—3/4	1/2—5/8	1/2—5/8	3/8—1 1/2	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
605	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
606	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
607	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
608	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
609	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
610	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
611	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
612	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
613	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
614	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
615	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
616	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
617	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
618	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
619	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
620	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
621	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
622	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40
623	1/4—3/8	1/2—1 1/8	1/2—5/8	1/2—5/8	1/2—5/8	1/2—5/8	1/8—1 1/4	1/2—5/8	5 3/4	1 1/4	\$0 20	\$0 30	\$0 40

See page 285 for finish of Wrenches.

Double-Head Tool Post Wrenches



Closed end, 22½° angle. Open end straight.

No.	Open End for U. S. Standard Nuts Size Bolts, In.	Closed End for Set Screws Size, Inches.	Extreme Length, Inches.	Price, Un- finished, Each.	Price, Semi- Finished, Each.	Price, Finished, Each.
124	3/8	9/16	6½	\$0 25	\$0 38	\$0 50
129	1/2	7/8	7	30	45	60
131	1/2	9/8	7	30	45	60
132	1/2	5/8	7	30	45	60
139	5/8	5/8	7½	35	52	70
140	5/8	3/4	8	40	60	80
143	3/4	3/4	9	50	75	1 00

Holes broached.

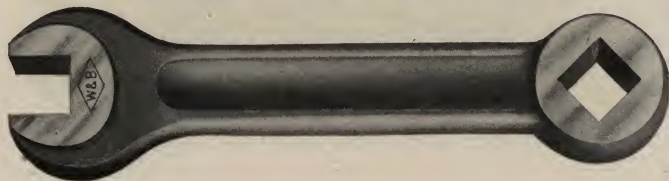
Single-Head Set Screw Wrenches



No.	For Set Screws, Size, Inches.	Extreme Length, Inches.	Price, Un- finished, Each.	Price, Semi- Finished, Each.	Price Finished, Each.
280	3/16	3	\$0 08	\$0 12	\$0 16
281	1/4	3 5/8	10	15	20
282	5/16	4 1/2	12	18	24
283	3/8	5 3/8	15	23	30
284	7/16	6 1/4	20	30	40
285	1/2	7	25	38	50
286	9/16	7 1/2	27	41	54
287	5/8	8	30	45	60
288	3/4	9 1/4	35	53	70
289	7/8	10 1/2	42	63	84
290	1	11 1/2	50	75	1 00
291	1 1/8	12	60	90	1 20

See page 285 for finish of Wrenches.

Double Head Set Screw Tool Post Wrenches



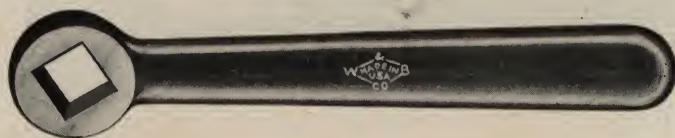
Closed end, $22\frac{1}{2}^{\circ}$ angle. Open end straight.

No.	Open End for Set Screws, Size Inches.	Closed End for Set Screws, Size Inches.	Length Over All, Inches.	Price Un- finished, Each.	Price Semi- finished, Each.	Price Finished, Each.
201	$\frac{7}{16}$	$\frac{7}{16}$	$5\frac{1}{2}$	\$0 21	\$0 32	\$0 42
202	$\frac{1}{2}$	$\frac{1}{2}$	6	23	35	46
203	$\frac{9}{16}$	$\frac{1}{2}$	6	23	35	46
204	$\frac{5}{8}$	$\frac{5}{8}$	$6\frac{3}{4}$	30	45	60
205	$\frac{11}{16}$	$\frac{5}{8}$	$6\frac{3}{4}$	30	45	60
206	$\frac{3}{4}$	$\frac{3}{4}$	$7\frac{1}{2}$	35	52	70

Holes broached.

Single Head Box Wrenches

$22\frac{1}{2}^{\circ}$ Angle



No.	For Set Screws, Size Inches.	Length Over All, Inches.	Thickness of Head, Inches.	Price Un- finished, Each.	Price Semi- finished, Each.	Price Finished, Each.
250	$\frac{1}{4}$	$3\frac{3}{8}$	$\frac{9}{32}$	\$0 10	\$0 15	\$0 20
251	$\frac{5}{16}$	$3\frac{3}{4}$	$\frac{3}{16}$	11	17	22
252	$\frac{3}{8}$	$4\frac{1}{4}$	$\frac{3}{8}$	13	20	26
253	$\frac{7}{16}$	$4\frac{7}{8}$	$\frac{7}{16}$	16	24	32
254	$\frac{1}{2}$	$5\frac{1}{2}$	$\frac{1}{2}$	19	28	38
255	$\frac{9}{16}$	$6\frac{1}{4}$	$\frac{1}{2}$	22	33	44
256	$\frac{5}{8}$	7	$\frac{9}{16}$	26	39	52
257	$\frac{3}{4}$	8	$\frac{5}{8}$	30	45	60
258	$\frac{7}{8}$	9	$\frac{11}{16}$	36	54	72
259	1	10	$\frac{3}{4}$	44	66	88

Holes broached. See page 285 for finish of Wrenches.

Double Head Set Screw Wrenches

15° Angle



No.	For Set Screws, Size, Inches	Extreme Length, Inches	Price Unfinished, Each	Price, Semi-finished, Each	Price, Finished, Each
65	$\frac{3}{16}$ & $\frac{1}{4}$	$3\frac{3}{8}$	\$0 13	\$0 20	\$0 26
66	$\frac{3}{16}$ & $\frac{5}{16}$	$3\frac{3}{8}$	13	20	26
67	$\frac{1}{4}$ & $\frac{3}{8}$	4	15	23	30
68	$\frac{1}{4}$ & $\frac{3}{8}$	4	15	23	30
69	$\frac{5}{16}$ & $\frac{3}{8}$	5	18	27	36
70	$\frac{5}{16}$ & $\frac{7}{16}$	5	18	27	36
71	$\frac{3}{8}$ & $\frac{1}{2}$	$5\frac{7}{8}$	22	33	44
72	$\frac{3}{8}$ & $\frac{1}{2}$	$5\frac{7}{8}$	22	33	44
73	$\frac{7}{16}$ & $\frac{1}{2}$	$6\frac{5}{8}$	27	41	54
74	$\frac{7}{16}$ & $\frac{9}{16}$	$6\frac{5}{8}$	27	41	54
75	$\frac{1}{2}$ & $\frac{9}{16}$	$7\frac{1}{2}$	33	50	66
76	$\frac{1}{2}$ & $\frac{5}{8}$	$7\frac{1}{2}$	33	50	66
77	$\frac{9}{16}$ & $\frac{5}{8}$	$8\frac{3}{8}$	40	60	80
78	$\frac{9}{16}$ & $\frac{3}{4}$	$8\frac{3}{8}$	40	60	80
79	$\frac{5}{8}$ & $\frac{3}{4}$	10	48	72	96
80	$\frac{5}{8}$ & $\frac{7}{8}$	10	48	72	96
81	$\frac{3}{4}$ & $\frac{7}{8}$	$11\frac{3}{8}$	58	87	1 16
82	$\frac{3}{4}$ & 1	$11\frac{3}{8}$	58	87	1 16

Triple Head Set Screw Wrenches



For Set Screws, Sizes, Inches.	Length Over All, Inches.	Thickness of Heads, Inches.	Price, Unfinished, Each	Price, Semi-finished, Each	Price, Finished, Each
$\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$	$5\frac{5}{8}$	$\frac{3}{8}$	\$0 28	\$0 42	\$0 56

See page 285 for finish of Wrenches.

Construction and Car Builders' Wrenches

15° Angle



The round tang is for bringing bolt and rivet holes into line. The correct tool for use in the construction of roofs, bridges, cars, etc., and can be inserted into convenient openings when wrench is not in use, always keeping tool in sight and preventing loss.

The openings are 15 degrees angle with the handle which admits turning a hexagon nut completely around, where the swing of the handle is limited to 30 degrees.

No.	For U. S. Standard Nuts, Size Bolts, Inches	Opening Finished, Inches.	Extreme Length, Inches.	Thickness Head, Inches.	Price Unfinished, Each.	Price Semi-Finished, Each.	Price Finished, Each.
454	$\frac{5}{8}$	$1\frac{1}{16}$	14	$\frac{9}{16}$	\$0 50	\$0 75	\$1 00
455	$\frac{3}{4}$	$1\frac{1}{4}$	16	$\frac{5}{8}$	65	97	1 30
456	$\frac{7}{8}$	$1\frac{1}{8}$	$17\frac{1}{2}$	$\frac{11}{16}$	85	1 28	1 70
457	1	$1\frac{5}{8}$	19	$\frac{3}{4}$	1 10	1 65	2 20

Construction Wrenches With Offset



Straight Opening

No.	For U. S. Standard Nuts, Size Bolts, Inches.	Opening, Inches.	Extreme Length, Inches.	Thickness Head, Inches.	Price Unfinished, Each.	Price Semi-Finished, Each.
484	$\frac{5}{8}$	$1\frac{1}{8}$	$14\frac{1}{8}$	$\frac{9}{16}$	\$0 50	\$0 75
485	$\frac{3}{4}$	$1\frac{5}{16}$	16	$\frac{5}{8}$	65	97
486	$\frac{7}{8}$	$1\frac{1}{2}$	$17\frac{1}{2}$	$\frac{11}{16}$	85	1 28
487	1	$1\frac{11}{16}$	19	$\frac{3}{4}$	1 10	1 65

See page 285 for finish of Wrenches.

Car Wrenches

Double Head

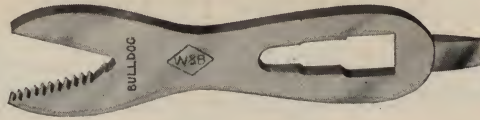
22½° Angle



No.	For U. S. Standard Nuts, Size Bolts, Inches.	Openings, Inches.	Extreme Length, Inches.	Thickness Heads, Inches.	Price, Unfinished, Each.	Price, Semi- finished, Each.
515	3/8 & 1/2	3/8 & 1/2	12	7/16 & 1/2	\$0 50	\$0 75
516	1/2 & 5/8	1/2 & 5/8	19	1/2 & 1/2	85	1 28
517	1/2 & 3/4	1/2 & 3/4	19	1/2 & 1/2	85	1 28
518	1/2 & 7/8	1/2 & 1 1/2	20	1/2 & 1/2	92	1 38
519	5/8 & 3/4	1 1/8 & 1 5/16	20	1/2 & 1/2	92	1 38
520	5/8 & 7/8	1 1/8 & 1 1/2	21	1/2 & 1/2	1 00	1 50
521	5/8 & 1	1 1/8 & 1 11/16	21	1/2 & 1/2	1 00	1 50
522	3/4 & 7/8	1 5/8 & 1 1/2	21	1/2 & 1/2	1 00	1 50
523	3/4 & 1	1 7/8 & 1 11/16	22	1/2 & 1/2	1 10	1 65
524	3/4 & 1 1/8	1 7/8 & 1 7/8	22	1/2 & 1/2	1 10	1 65
525	7/8 & 1	1 1/2 & 1 11/16	22	1/2 & 1/2	1 10	1 65
526	7/8 & 1 1/8	1 1/2 & 1 7/8	23	1/2 & 1/2	1 23	1 85
527	7/8 & 1 1/4	1 1/2 & 2 1/16	23	1/2 & 9/16	1 23	1 85
528	1 & 1 1/8	1 11/16 & 1 7/8	23	1/2 & 1/2	1 23	1 85
529	1 & 1 1/4	1 11/16 & 2 1/16	24	1/2 & 9/16	1 40	2 10
530	1 1/8 & 1 1/4	1 7/8 & 2 1/16	24	1/2 & 9/16	1 40	2 10

See page 285 for finish of Wrenches.

"Bull Dog" Wrenches



No. 0. Pocket size, 4 inches long. Holds pipe $\frac{1}{8}$ to $\frac{1}{4}$ inch. Holds round iron $\frac{1}{4}$ to $\frac{3}{16}$ inch.

Priceper dozen, \$3.00



No. 1. $5\frac{3}{4}$ inches long. Holds pipe $\frac{1}{8}$ to $\frac{3}{8}$ inch. Holds round iron $\frac{1}{4}$ to $\frac{3}{4}$ inch.

Priceper dozen, \$4.00



No. $1\frac{1}{2}$. $5\frac{3}{4}$ inches long. Holds pipe $\frac{1}{8}$ to $\frac{3}{8}$ inch. Holds round iron $\frac{1}{4}$ to $\frac{3}{4}$ inch.

Priceper dozen, \$5.00



No. $1\frac{3}{4}$. 7 1-16 inches long. Holds pipe $\frac{1}{8}$ to $\frac{3}{4}$ inch. Holds round iron $\frac{3}{8}$ to $1\frac{1}{8}$ inch.

Priceper dozen, \$8.00

“Bull Dog” Wrenches



No.	Length, Inches.	Holds Pipe, Diameter, Inches.	Holds Round Iron, Diameter, Inches.	Price Per Dozen.
2 2½	9 12½	$\frac{3}{8}$ to $\frac{3}{4}$ $\frac{3}{8}$ to 1	$\frac{1}{2}$ to 1 $\frac{5}{8}$ to $1\frac{1}{4}$	\$12 00 18 00



No.	Length, Inches.	Holds Pipe, Diameter, Inches.	Holds Round Iron, Diameter, Inches.	Price Per Dozen.
3	16	$\frac{1}{2}$ to $1\frac{1}{4}$	$\frac{3}{4}$ to $1\frac{3}{8}$	\$24 00
3½	18¾	$\frac{1}{2}$ to $1\frac{1}{2}$	$\frac{3}{4}$ to $1\frac{3}{4}$	30 00
4	22	$1\frac{1}{4}$ to 2	$1\frac{1}{2}$ to $2\frac{1}{2}$	36 00
4½	24	$1\frac{1}{4}$ to $2\frac{1}{2}$	$1\frac{5}{8}$ to 3	45 00
5	27	2 to 3	$2\frac{1}{4}$ to $3\frac{1}{2}$	54 00

Twin Wrenches



No.	Length, Inches.	Holds Pipe, Diameter, Inches.	Holds Round Iron, Diameter, Inches.	Price Per Dozen.
Twin.	10	$\frac{1}{8}$ to $\frac{3}{4}$	$\frac{1}{4}$ to 1	\$18 00

Drop forged from high carbon steel of special analysis.

"Always Ready" Wrenches

Polished and Nickel Plated



Number.	Length, Inches.	Holds Square or Round Iron, Diameter, Inches.	Price per Dozen.	Number.
1	5	$\frac{1}{4}$ to $\frac{3}{4}$	\$5 00	1
2	7	$\frac{1}{4}$ to $1\frac{1}{4}$	6 75	2
$2\frac{1}{2}$	$9\frac{1}{2}$	$\frac{1}{4}$ to $1\frac{3}{4}$	10 50	$2\frac{1}{2}$
3	$11\frac{1}{2}$	$\frac{3}{4}$ to 2	16 00	3

Manufactured from high carbon steel, of special analysis, forged and tempered in oil.

"Always Ready" Wrenches

Black Finish—Polished Jaws



Number.	Length, Inches.	Holds Square or Round Iron, Diameter, Inches.	Price Per Dozen.	Number.
1	5	$\frac{1}{4}$ to $\frac{3}{4}$	\$4 50	1
2	7	$\frac{1}{4}$ to $1\frac{1}{4}$	6 25	2
$2\frac{1}{2}$	$9\frac{1}{2}$	$\frac{1}{4}$ to $1\frac{3}{4}$	10 00	$2\frac{1}{2}$
3	$11\frac{1}{2}$	$\frac{3}{4}$ to 2	15 25	3

“W. & B.” Auto Wrenches



A Strong Wrench, with head and bar drop forged in one piece from Open Hearth Steel.

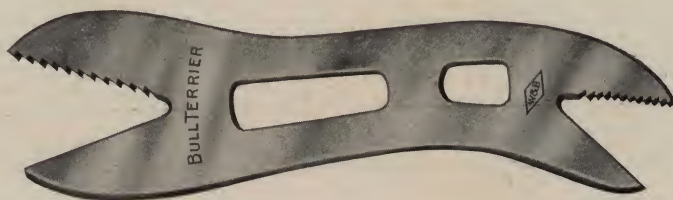
Adapted for automobile and other work where a wrench with thin jaws is required.

Fitted with our indestructible iron handle.

Made in 10 inch size and packed one each in neat wood box with slide cover.

Priceper dozen, \$15.00

“Bull Terrier” Wrenches



Small end holds pipe $\frac{1}{8}$ to $\frac{1}{4}$ inch, round iron $\frac{1}{4}$ to $\frac{3}{16}$ inch; large end holds pipe $\frac{1}{8}$ to $\frac{3}{8}$ inch, round iron $\frac{1}{4}$ to $\frac{3}{4}$ inch. Jaws are oil tempered and entire Wrench nicely polished. Each Wrench wrapped in oil paper, placed in an envelope, and packed one-half dozen to a box.

Priceper dozen, \$6.50

"W. & B." Machinists' Knife Handle Wrenches



This wrench has the head and bar drop forged in one piece from selected steel. The jaws are case hardened and the entire wrench is ground, polished and highly finished. Every wrench warranted.



Detail view showing construction of handle on "W. & B." Machinists' Knife Handle Wrench.

Black Finish

Size in Inches.	Price, per Dozen.	Size in Inches.	Price, per Dozen.
6	\$ 9 00	15	\$24 00
8	10 00	18	30 00
10	12 00	21	36 00
12	14 00		

Size in Inches.	Opening, Inches.	Packed.	Number in Case.	Net and Gross Weight per Case	Measurements per Case, Inches.
6	1	½ doz. in package	72	55- 65	14x10x 9
8	1 ⁷ / ₁₆	" " " "	72	107-120	18x11x11
10	1 ³ / ₄	" " " "	72	163-180	26x12x 8
12	2 ¹ / ₄	" " " "	72	241-260	30x14x10
15	2 ³ / ₄	" " " "	48	243-267	24x18x11
18	2 ¹¹ / ₁₆	⅓ doz. in package	24	162-180	22x13x12
21	3 ⁷ / ₈	" " " "	12	105-120	25x12x 8

Each wrench wrapped in manila and waxed tissue.

"Railroad Special" Wrenches



This Wrench is of the same construction and finish as our "W. & B." Machinists' Knife Handle Wrench, except it is fitted with our indestructible iron handle.

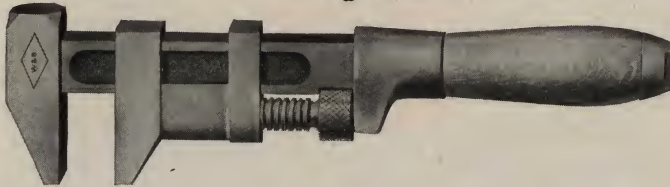
Black Finish

Size in Inches.	Price per Dozen.	Size in Inches.	Price per Dozen.
6	\$ 9 00	15	\$24 00
8	10 00	18	30 00
10	12 00	21	36 00
12	14 00	.....	.....

Size in Inches.	Opening Inches.	Packed.	No. in Case.	Net and Gross Weight per Case.	Measurement per Case. Inches.
6	1	½ doz. in package.	72	54- 65	14x 9x 8
8	1 ⅞	" " "	72	102-120	17x11x10
10	1 ¾	" " "	72	165-189	26x13x 8
12	2 ¼	" " "	72	231-255	30x14x 8
15	2 ⅝	" " "	48	236-257	23x18x 9
18	2 ⅞	⅓ doz. in package.	24	171-190	22x13x11
21	3 ⅞	" " "	24	105-120	25x11x 8

Each Wrench in Manila Wrapper.

"W. & B." Regular Wrenches



These Wrenches have extra heavy wrought bar and head, drop forged in one piece; deep milled screw thread; opens full.
Every wrench fully warranted.

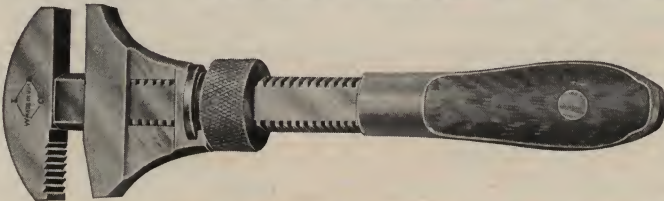
List in Effect February 15th, 1905

Size in Inches.		Price per Dozen.		Size in Inches.		Price per Dozen.	
6		\$10 00		12		\$17 00	
8		12 00		15		24 00	
10		14 00		....		.....

Size in Inches.	Opening Inches.	Packed.	No. in Case.	Net and Gross Weight per Case.	Measurement per Case, Inches.
6	$\frac{7}{8}$	$\frac{1}{2}$ doz. in package.	72	50-60	14x10x 9
8	$1\frac{1}{4}$	" " "	72	87-100	18x11x11
10	$1\frac{5}{8}$	" " "	72	132-150	26x12x 8
12	$1\frac{3}{4}$	" " "	72	167-190	28x14x 9
15	$2\frac{3}{8}$	" " "	48	157-180	22x17x10

Each wrench in manila wrapper.

"W. & B." Combination Wrenches



This Wrench combines all desirable features of both pipe and nut wrenches. Head and bar forged as a unit.

It is adapted to a wide range of work.

Material, workmanship and finish are of the very best.

Bright Finish

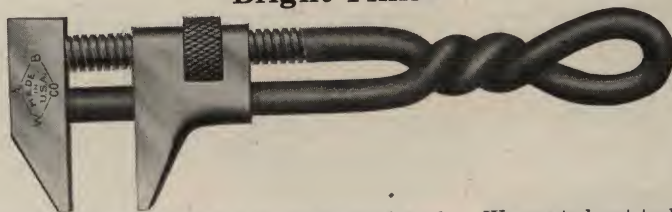
Size in Inches.	Adjustment Limits.				Price per Doz.
10	Wire or pipe from $\frac{1}{4}$ to 1 inch, outside diameter				\$23 00
12	Wire or pipe from $\frac{1}{2}$ to $1\frac{3}{4}$ inch, outside diameter				26 00
15	Wire or pipe from $\frac{1}{2}$ to $2\frac{1}{4}$ inch, outside diameter				37 00
18	Wire or pipe from $\frac{1}{2}$ to 3 inch, outside diameter				66 00

Size in Inches.	Opening Inches.	Packed.	No. in Case.	Net and Gross Weight per Case.	Measurement per Case, Inches.
10	$2\frac{1}{4}$	$\frac{1}{2}$ doz. in wooden box.	72	165-190	32x12x 9
12	$2\frac{5}{8}$	" " " "	72	250-280	35x14x10
15	$3\frac{1}{8}$	" " " "	48	260-290	27x17x11
18	$4\frac{1}{2}$	" " " "	24	200-230	36x20x 7

Each wrench wrapped in manila and waxed tissue.

Improved "Acme" Steel Wrenches

Bright Finish



Made in four parts, and of a high grade of steel. Warranted not to break, bend or spring with ordinary use.

List in Effect February 15th, 1905

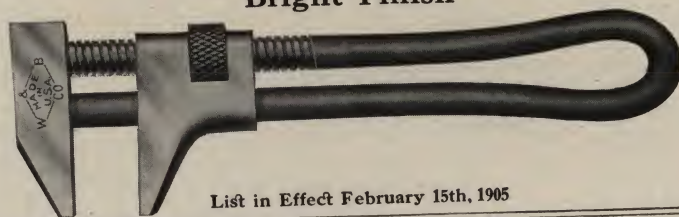
Size in Inches.		Price per Dozen.	Size in Inches.		Price per Dozen.
6		\$10 00	12		\$17 00
8		12 00	15		24 00
10		14 00	.....		.....

Size in Inches.	Opening Inches.	Packed.	No. in Case.	Net and Gross Weight per Case.	Measurement per Case, Inches.
6	1	½ doz. in wooden box	72	59- 70	18x11x 9
8	1½	" " " "	72	96-110	22x11x11
10	2¼	" " " "	72	140-160	24x12x11
12	3	" " " "	72	234-260	27x15x14
15	3½	" " " "	48	205-240	27x18x11

Each Wrench in Manila Wrapper.

All Steel "Hercules" Wrenches

Bright Finish



List in Effect February 15th, 1905

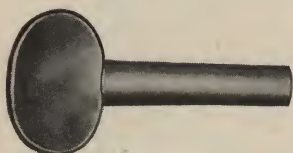
Size in Inches.		Price per Dozen.	Size in Inches.		Price per Dozen.
6		\$10 00	12		\$17 00
8		12 00	15		24 00
10		14 00	.....		.....

Size in Inches.	Opening Inches.	Packed.	No. in Case.	Net and Gross Weight per Case.	Measurement per Case, Inches.
6	1	½ doz. in package.	72	50- 60	22x 8x 6
8	1¾	" " "	72	86-100	26x10x 7
10	2¼	" " "	72	130-150	31x12x 7
12	3¼	" " "	72	205-230	35x14x 8
15	4¾	" " "	48	205-230	27x18x11

Each Wrench in Manila Wrapper.

Drop-Forged Thumb Screw Blanks

All Sizes



Plain



Shoulder

List Per 100

DIAMETER.											
*	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$
$\frac{1}{4}$	\$1 60	\$1 80	\$2 05	\$2 40	\$2 95	.....	.....	.....	.....	.....	.....
$\frac{1}{2}$	1 70	1 90	2 15	2 50	3 05	\$3 80	\$4 75	\$5 85	.....	.....	.....
$\frac{3}{4}$	1 80	2 00	2 25	2 60	3 20	4 00	5 00	6 20	.....	.....	.....
1	1 90	2 10	2 35	2 75	3 40	4 25	5 30	6 55	\$8 00	\$9 65	\$11 55
$1\frac{1}{4}$	2 00	2 20	2 45	2 90	3 60	4 50	5 60	6 90	8 40	10 15	12 20
$1\frac{1}{2}$	2 10	2 30	2 55	3 10	3 80	4 75	5 95	7 30	8 90	10 75	12 90
$1\frac{3}{4}$	.....	2 40	2 70	3 30	4 05	5 05	6 30	7 75	9 40	11 35	13 60
2	.....	2 50	2 85	3 50	4 30	5 35	6 65	8 20	9 95	11 95	14 30
$2\frac{1}{4}$	.....	.....	3 05	3 70	4 60	5 70	7 05	8 65	10 50	12 60	15 05
$2\frac{1}{2}$	.....	.....	3 25	3 95	4 90	6 05	7 45	9 15	11 05	13 25	15 80
$2\frac{3}{4}$	.....	.....	3 45	4 20	5 20	6 40	7 90	9 65	11 65	13 90	16 55
3	.....	.....	3 70	4 45	5 50	6 75	8 35	10 15	12 25	14 60	17 35
$3\frac{1}{2}$	.....	.....	.....	5 00	6 15	7 55	9 25	11 25	13 50	16 10	19 05
4	.....	.....	.....	5 60	6 90	8 45	10 25	12 40	14 85	17 60	20 75
$4\frac{1}{2}$	.....	.....	.....	.....	7 70	9 35	11 35	13 70	16 35	19 30	22 60
5	.....	.....	.....	.....	8 50	10 35	12 60	15 15	18 00	21 20	24 80
$5\frac{1}{2}$	.....	.....	.....	.....	9 40	11 45	13 90	16 65	19 80	23 30	27 15
6	.....	.....	.....	.....	.....	.....	15 20	18 30	21 80	25 70	30 00

*Length under head.

The above list applies to both shoulder and plain pattern Thumb Screw Blanks. Please state in ordering which style is desired.

These goods are Drop Forged from soft steel. All sizes are regular, uniform and well finished. We are not at present prepared to furnish Threaded Thumb Screws.

Drop-Forged Thumb Nut Blanks



Size bolt, in.	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{3}{4}$
Price per 100.	\$1 75	2 00	2 25	2 60	3 35	4 00	5 00	6 00	7 25	10 50

We are not prepared to furnish threaded thumb nuts.

Drop-Forged Machine Handles



Unfinished only.

No.	Length Over All.	Length of Shank.	Diameter of Shank.	Price Each.
00	$2\frac{1}{16}$	$1\frac{7}{32}$	$\frac{21}{64}$	\$0.04
0	$2\frac{5}{16}$	$1\frac{7}{32}$	$\frac{23}{64}$	.05
1	$2\frac{11}{16}$	$1\frac{7}{32}$	$\frac{27}{64}$	.06
2	$3\frac{5}{16}$	$1\frac{7}{32}$	$\frac{31}{64}$	.08
3	$3\frac{11}{16}$	$1\frac{7}{32}$	$\frac{35}{64}$	.10
4	$4\frac{9}{16}$	$1\frac{7}{32}$	$\frac{39}{64}$	.12
5	$5\frac{3}{16}$	$1\frac{7}{32}$	$\frac{43}{64}$	.14
6	$5\frac{13}{16}$	$1\frac{7}{32}$	$\frac{47}{64}$	.16
7	$6\frac{11}{16}$	$1\frac{7}{32}$	$\frac{49}{64}$	.22

W. & B. Warranted Files



Price List in Effect November 1st, 1899

PRICE PER DOZEN

INCH	MILL AND ROUND			FLAT			INCH	SQUARE			HAND and PILLAR			INCH	Hil. Rd. & Three Sq.			WARDING		
	Bas'd	2d Cut	Sm'th	Bas'd	2d Cut	Sm'th		Bas'd	2d Cut	Sm'th	Bas'd	2d Cut	Sm'th		Bas'd	2d Cut	Sm'th	Bas'd	2d Cut	Sm'th
4	3.00	3.50	3.90	3.70	4.30	4.70	4	3.80	4.60	4.90	3.70	4.30	4.80	4	4.80	5.60	6.10	4.00	4.80	5.40
5	3.20	3.80	4.10	3.90	4.60	4.90	5	4.10	4.80	5.30	3.90	4.70	5.30	5	5.40	6.10	6.40	4.50	5.30	5.80
6	3.50	4.00	4.50	4.30	4.80	5.30	6	4.60	5.10	5.50	4.30	5.10	5.60	6	6.10	6.70	7.10	4.90	5.90	6.40
7	3.90	4.60	4.90	4.80	5.50	6.10	7	5.10	5.80	6.30	4.90	5.80	6.30	7	7.00	7.70	8.20	5.90	6.90	7.50
8	4.30	4.90	5.40	5.30	6.10	6.60	8	5.50	6.30	7.00	5.40	6.30	6.70	8	7.50	8.30	8.90	6.40	7.50	8.20
9	4.90	5.80	6.30	6.30	7.20	7.90	9	6.00	7.00	8.30	6.70	7.80	8.30	9	8.50	9.40	9.90	7.80	9.00	9.90
10	5.60	6.40	7.00	7.00	8.10	8.70	10	7.40	8.50	9.10	7.50	8.70	9.40	10	9.10	10.10	10.70	8.70	10.10	11.00
11	6.70	7.80	8.50	8.60	9.80	10.70	11	9.10	10.40	11.30	9.40	10.90	11.80	11	10.70	11.80	12.70	10.90	12.70	13.70
12	7.50	8.60	9.40	9.70	11.00	12.10	12	10.20	11.50	12.80	10.70	12.30	13.50	12	11.80	13.00	13.90	12.30	14.30	15.40
13	9.40	10.70	11.70	11.80	13.00	14.70	13	12.50	14.30	15.40	13.30	15.20	16.20	13	14.10	15.40	16.60	15.20	17.40	18.70
14	10.70	12.20	13.10	13.30	15.30	16.70	14	13.90	16.10	17.50	15.00	17.00	18.20	14	15.50	17.00	18.30	17.00	19.40	21.00
15	13.10	15.00	16.10	16.00	18.30	20.00	15	16.90	19.20	20.90	17.90	20.20	21.70	15	18.50	20.40	21.70			
16	14.70	16.80	17.90	17.80	20.20	22.30	16	18.70	21.20	23.30	20.20	22.80	24.20	16	20.60	22.50	24.20	STAYSAW		
17	18.20	20.20	21.70	21.50	24.20	26.50	17	22.50	25.40	27.50	24.20	27.70	29.60	17	24.70	27.00	28.90	8 inch, \$9.40		
18	20.20	22.20	24.30	24.00	26.80	29.20	18	25.10	28.20	30.30	26.80	30.30	32.10	18	27.50	29.90	32.00	STAYSAW IMP'D.		
19	24.60	27.50	29.20	28.80	32.30	34.60	19	29.70	33.20	35.70	31.90	35.40	37.60	19	32.80	35.70	38.10			
20	27.40	30.70	32.90	31.50	35.30	38.30	20	32.80	36.70	39.30	35.10	39.20	41.60	20	36.20	39.40	42.30			

INCH	MILL ONE ROUND EDGE			MILL TWO RD. EDGES			INCH	TAPERS		SLIM TAPERS		BANDSAW B't & Tap'r		INCH	PIT SAW	CANT SAW	CROSS-CUT	HOOK TOOTH	PLN'R KNIFE	Ins'd Tooth or Chisel Tooth
	Bas'd	2d Cut	Sm'th	Bas'd	2d Cut	Sm'th		Single Cut	D'ble Cut	Single Cut	D'ble Cut	Regu-lar	Slim		Single Cut	Single Cut	Single Cut	Single Cut	Single Cut	Single Cut
4	3.40	3.90	4.40	3.80	4.40	4.90	3	2.10	2.50	2.10	2.50	2.50	2.50	4	4.80	4.30	4.80	.....	.....	.....
5	3.60	4.30	4.60	4.00	4.80	5.10	3½	2.10	2.50	2.10	2.50	2.50	2.50	5	5.40	4.70	5.40	.....	.....	.....
6	3.90	4.50	5.10	4.40	5.00	5.60	4	2.20	2.90	2.20	2.90	2.90	2.90	6	6.10	5.40	6.10	6.70	.....	.....
7	4.40	5.20	5.60	4.90	5.80	6.10	4½	2.40	3.10	2.30	3.00	3.10	3.00	7	7.00	6.10	7.00	7.70	.....	.....
8	4.80	5.50	6.10	5.40	6.10	6.80	5	2.60	3.50	2.50	3.20	3.50	3.20	8	7.50	6.40	7.50	8.30	6.40	8.30
9	5.50	6.50	7.10	6.10	7.30	7.90	5½	3.00	4.00	2.90	3.50	4.00	3.50	9	8.50	7.80	8.50	9.40	.....	9.40
10	6.30	7.20	7.90	7.00	8.00	8.80	6	3.40	4.70	3.10	3.90	4.70	3.90	10	9.10	7.90	9.10	10.10	8.60	10.10
11	7.50	8.80	9.60	8.40	9.80	10.60	7	4.30	5.60	3.80	4.50	5.60	4.50	11	10.70	10.40	10.70	11.80	.....	.....
12	8.40	9.70	10.60	9.40	10.80	11.80	8	5.40	6.70	4.50	5.30	6.70	5.30	12	11.80	11.40	11.80	13.00	12.10	.....
13	10.60	12.00	13.20	11.80	13.40	14.60	9	6.60	8.10	5.40	6.30	8.10	6.30							
14	12.00	13.70	14.70	13.40	15.30	16.40	10	8.10	9.70	6.40	7.50	9.70	7.50							
15	14.70	16.90	18.10	16.40	18.80	20.10	11	10.70	12.10	8.30	9.10	12.10	9.10							
16	16.50	18.90	20.10	18.40	20.20	22.40	12	12.50	14.70	9.50	11.00	14.70	11.00							
17	20.52	22.74	24.22	22.80	25.37	27.17	13	15.90	17.50	12.10	13.10	17.50	13.10							
18	22.75	25.27	30.25	30.28	40.30	40.40	14	18.20	20.60	13.80	15.40	20.60	15.40							
														Climax, adv. 2 in. on Hlf. Rd. Bastard. Round Gulleting, take Pittsaw Price.						
														Double Ended Tap with Handles						
														8	9	10	11	12	13	
														3.50 3.90 4.40 4.90						

INCH	HORSE RASPS			FILE RASPS			INCH	WOOD FILES			WOOD RASPS			INCH	SHOE RASPS			INCH	KNIFE		
	Plain	3 & 4 Rasp	Tng'd	Flat	Hil. R.			Flat	Hil. R.	Cab-net	Flat	Hil. R.	Cab-net		Flat	Hil. R.	Oval		Bas'd	2d Cut	Sm'th
6	.....	.....	.....	7.40	8.10		6	4.30	6.10	8.10	7.40	8.10	10.10	6	8.10	8.10	9.30	4	5.40	6.10	6.40
7	.....	.....	.....	8.60	9.30		7	4.80	7.00	9.30	8.60	9.30	11.70	7	9.30	9.30	10.10	5	6.10	6.70	7.10
8	.....	.....	.....	9.40	10.10		8	5.30	7.50	10.10	9.40	10.10	12.80	8	10.10	10.10	12.20	6	6.90	7.50	7.90
9	.....	.....	.....	11.40	12.20		9	6.30	8.50	12.20	11.40	12.20	15.50	9	12.20	12.20	13.70	7	7.80	8.50	8.90
10	9.40	10.70	12.80	12.80	13.70		10	7.00	9.10	13.70	12.80	13.70	17.50	10	13.70	13.70	16.80	8	8.50	9.10	9.50
11	11.40	12.90	15.20	15.20	16.80		11	8.60	10.70	16.80	15.20	16.80	20.70	11	16.80	16.80	18.70	9	9.40	10.60	11.30
12	12.80	14.40	16.80	17.50	18.70		12	9.70	11.80	18.70	17.50	18.70	22.80	12	18.70	18.70	22.40	10	10.10	11.50	12.30
13	15.20	17.00	19.60	20.20	22.40		13	11.80	14.10	22.40	20.20	22.40	26.80	13	22.40	22.40	.....	11	12.20	13.70	14.60
14	17.80	20.20	23.30	23.30	24.80		14	13.30	15.50	24.80	23.30	24.80	29.60	14	24.80	24.80	.....	12	13.70	15.20	16.10
15	20.20	23.60	27.30	27.30	28.90		15	16.00	18.50	27.30	27.30	28.90	33.90					13	16.30	17.90	19.20
16	24.40	27.70	32.30	32.30	34.30		16	17.80	20.60	32.30	32.30	34.30	36.90					14	18.20	19.90	21.20
17	28.90	31.50	.....	36.20	38.90		17	21.50	24.70	38.90	36.20	38.90	42.40								
18	32.90	36.20	.....	40.90	43.60		18	23.90	27.50	43.60	40.90	43.60	46.90								

Cases below 4 inches not extended, take 4 inch price.
 Half inches not specified, take next higher full inch price.
 Dead Smooth, double the price of Bastard Cut.
 One Round Edge, advance 12½ per cent.
 All Lengths above those listed, advance 20 per cent. on next lower inch price.
 Blunt Files not specified, advance one inch on respective kinds and cuts.
 Single or Float Cut not specified, on regular shapes take Double Cut price.
 Equalings (Bellied), advance two inches on respective kinds and cuts.
 Two Round Edges, advance 25 per cent.
 Files Varying from standard sizes, subject to special prices.
 Cuts Not Specified, made upon regular blanks, advance one inch on respective kinds and nearest cut.

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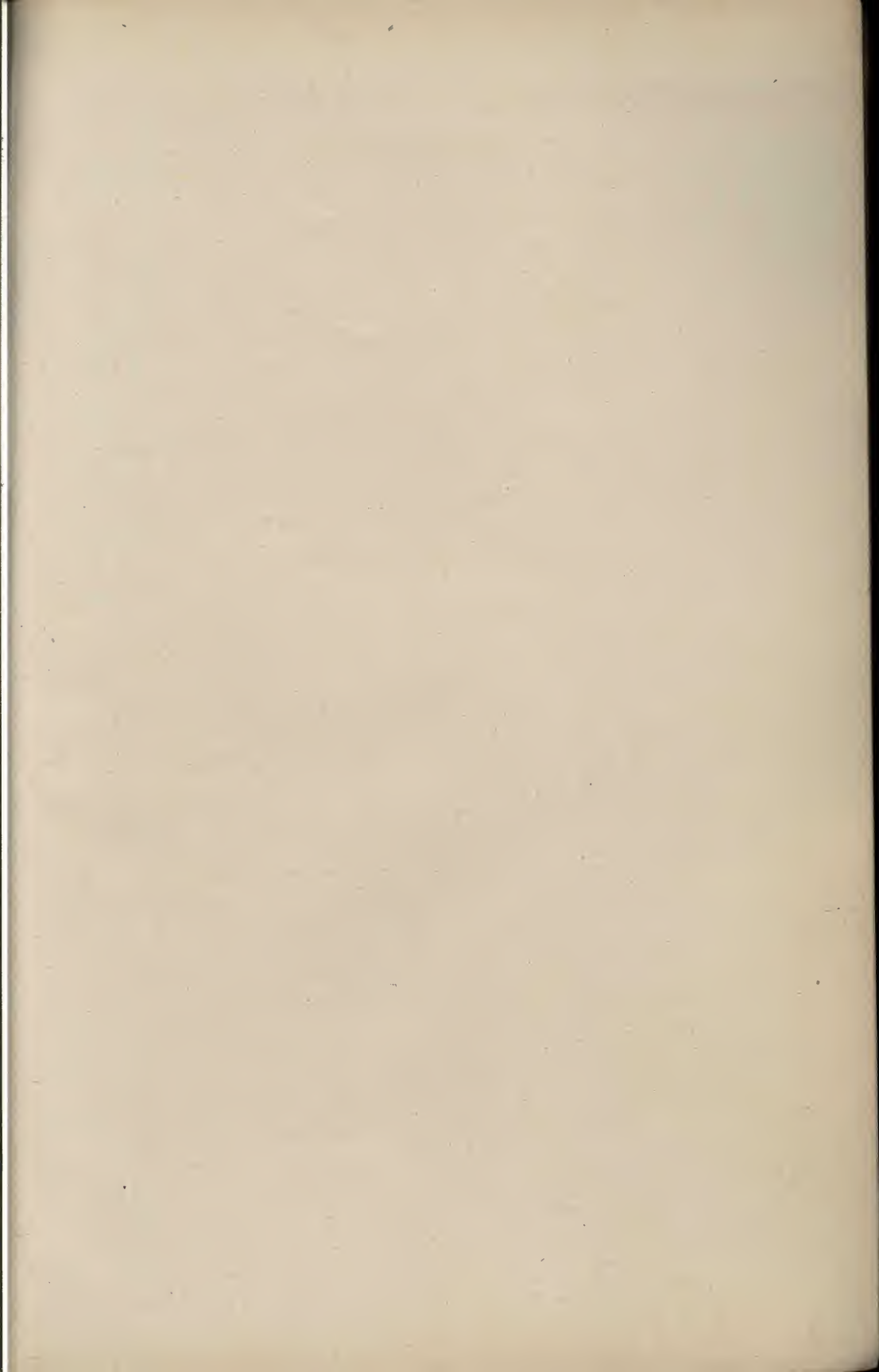
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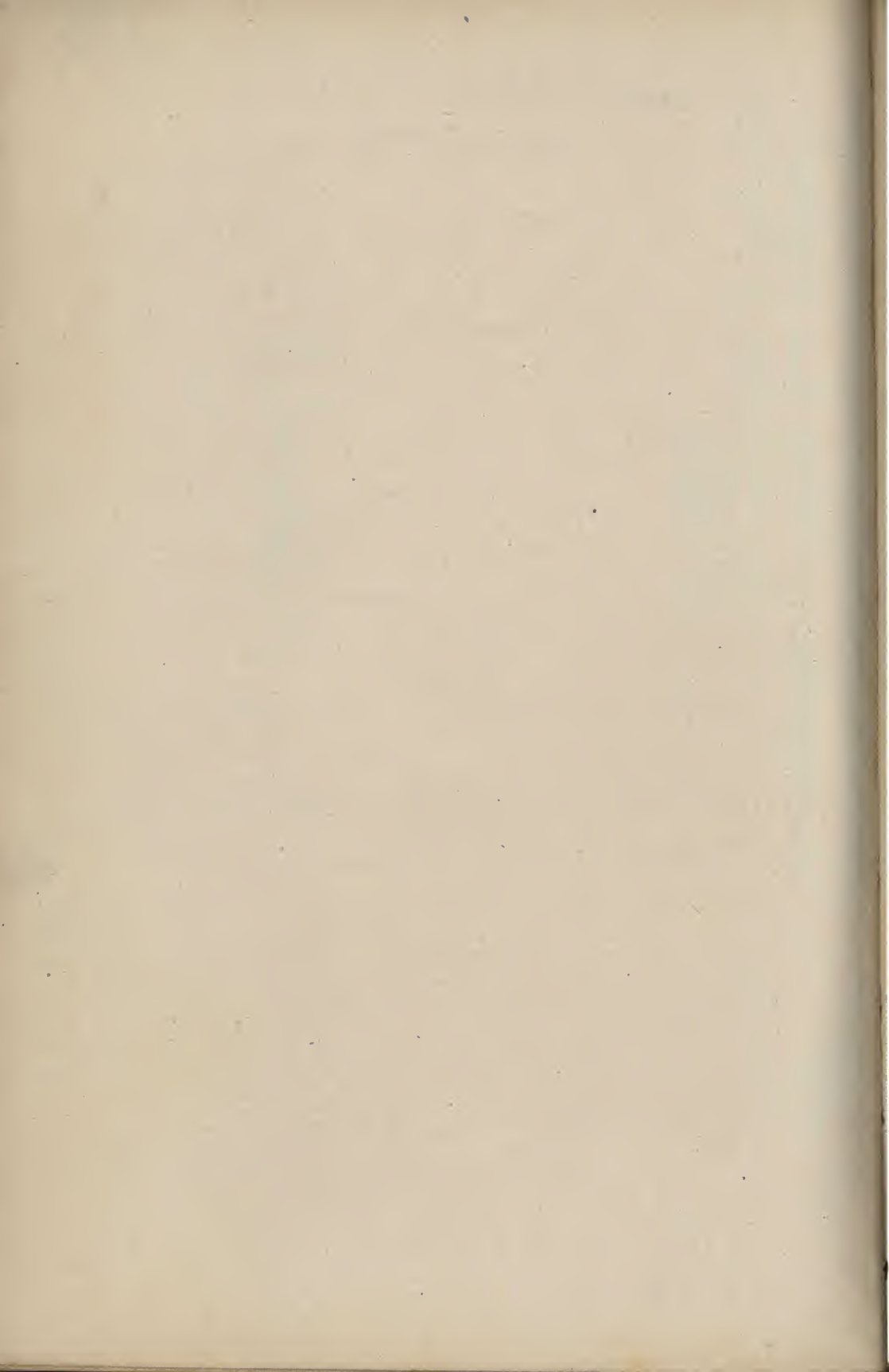
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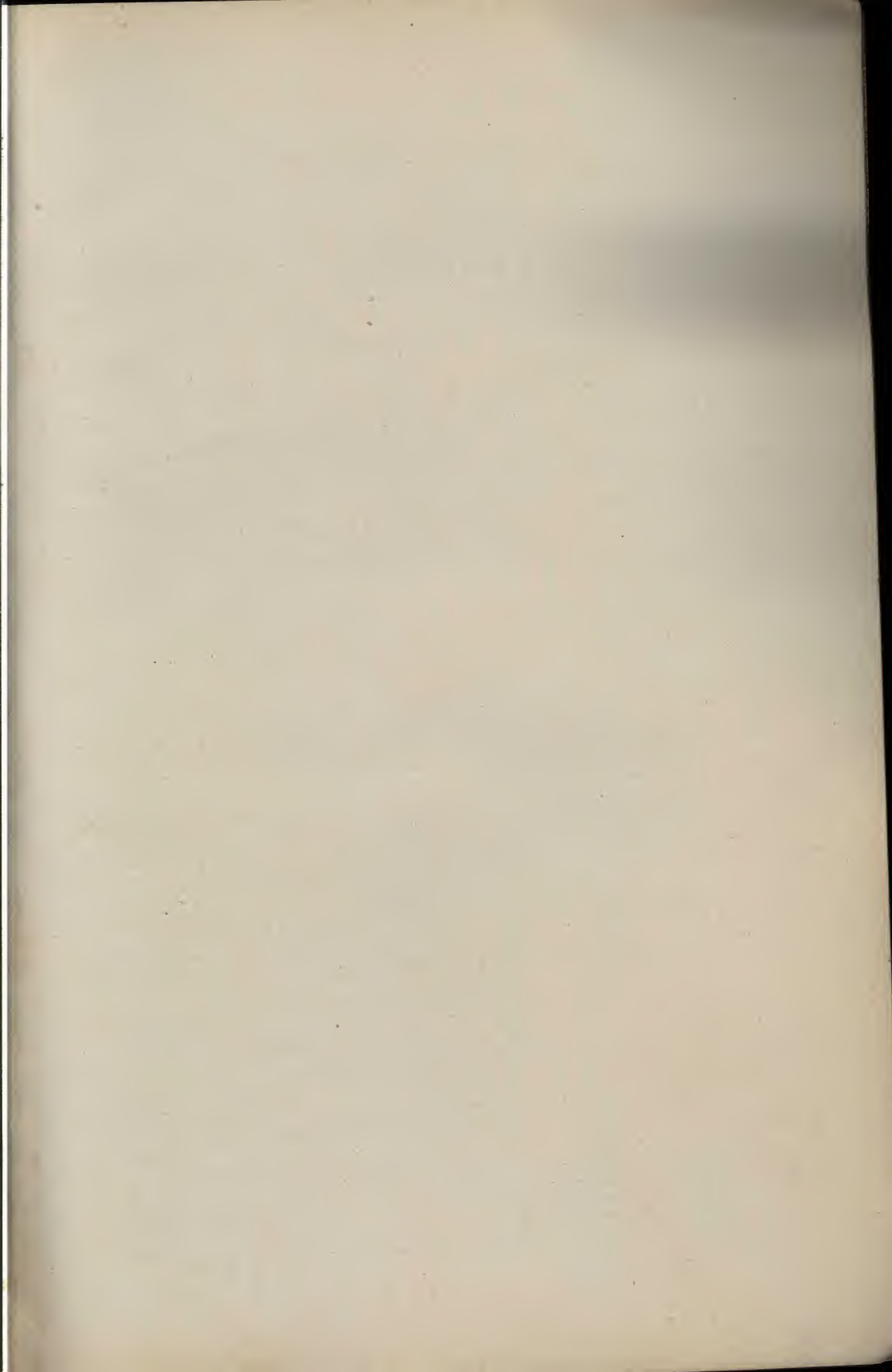
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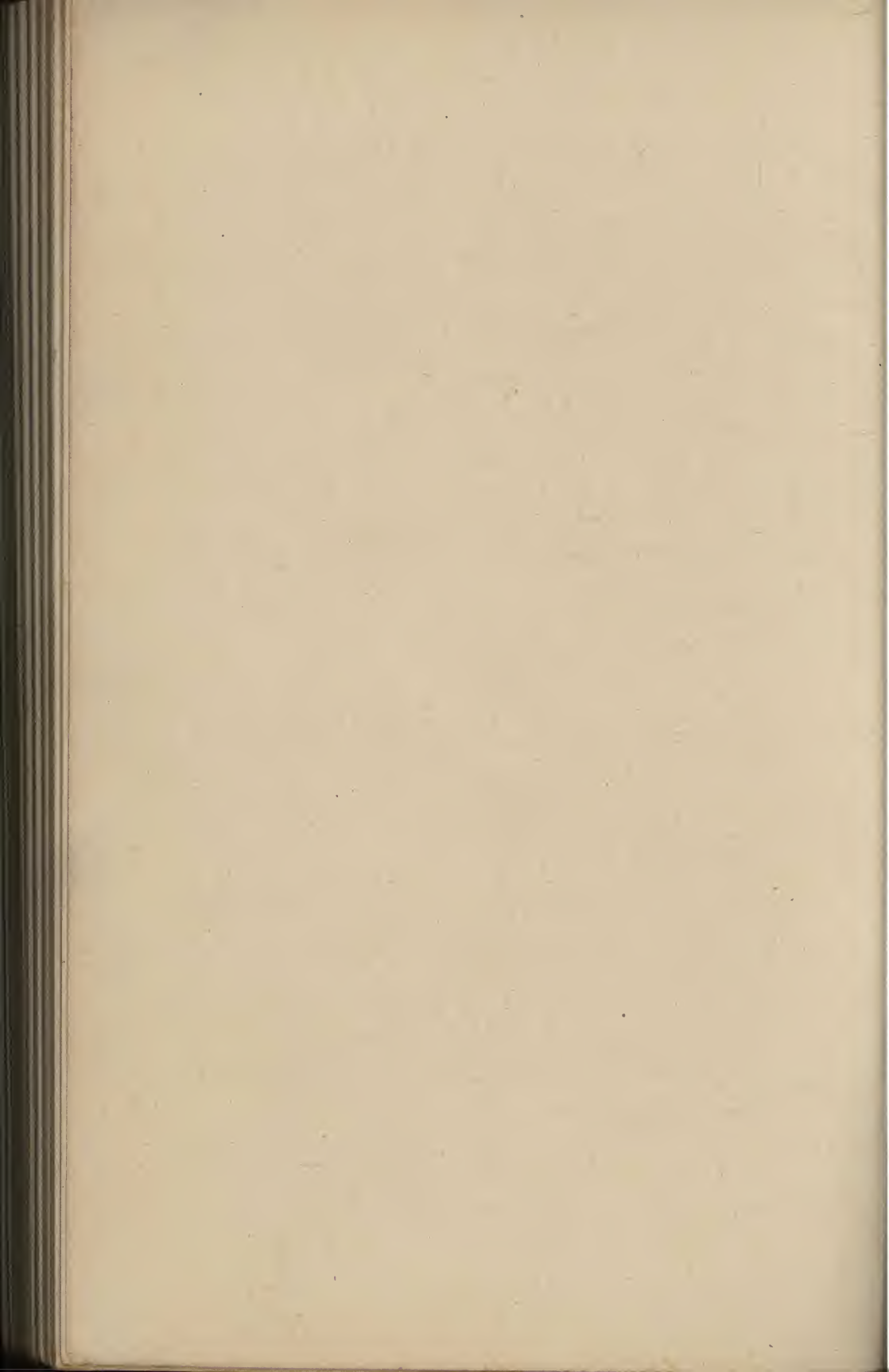
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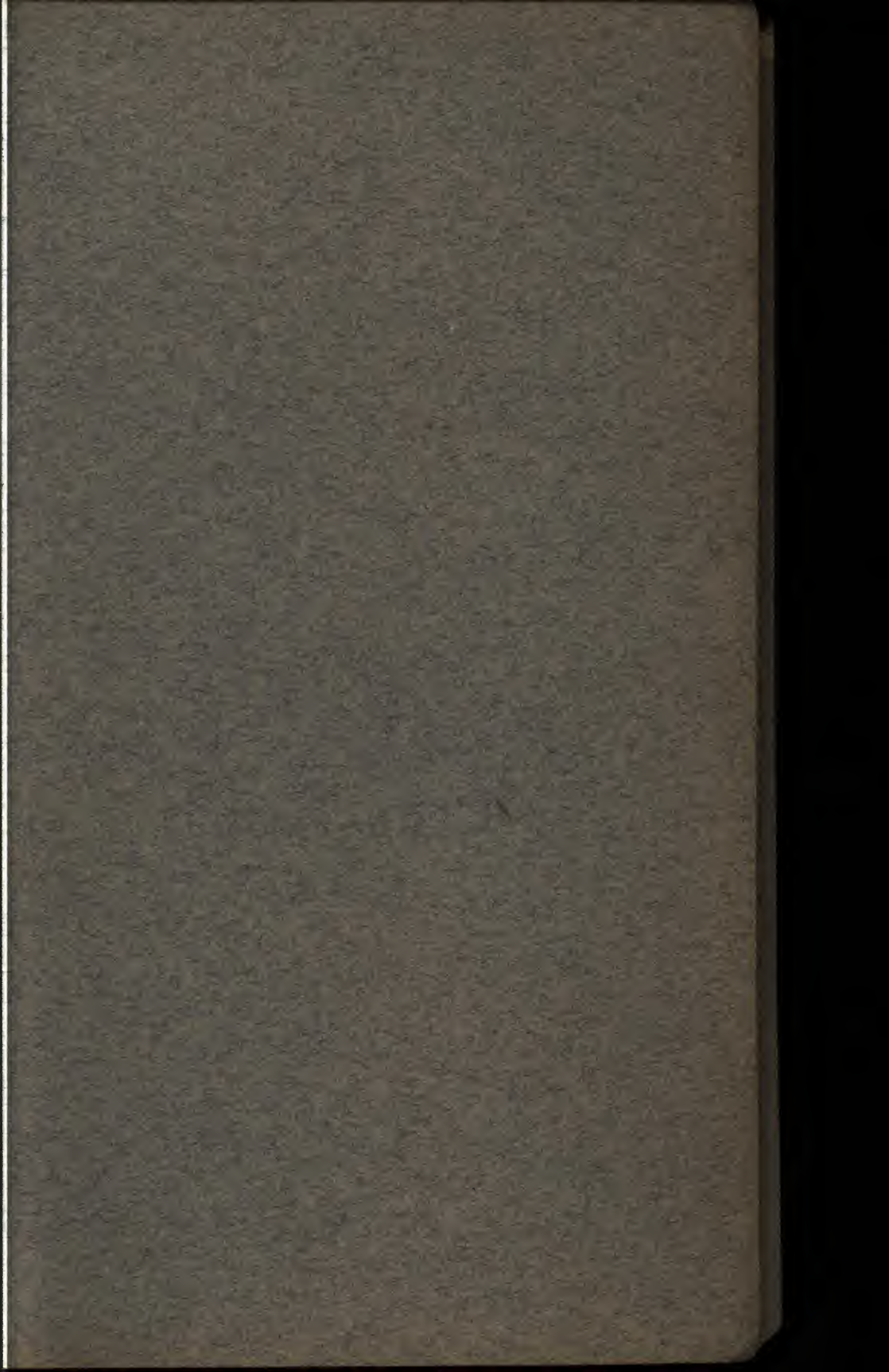
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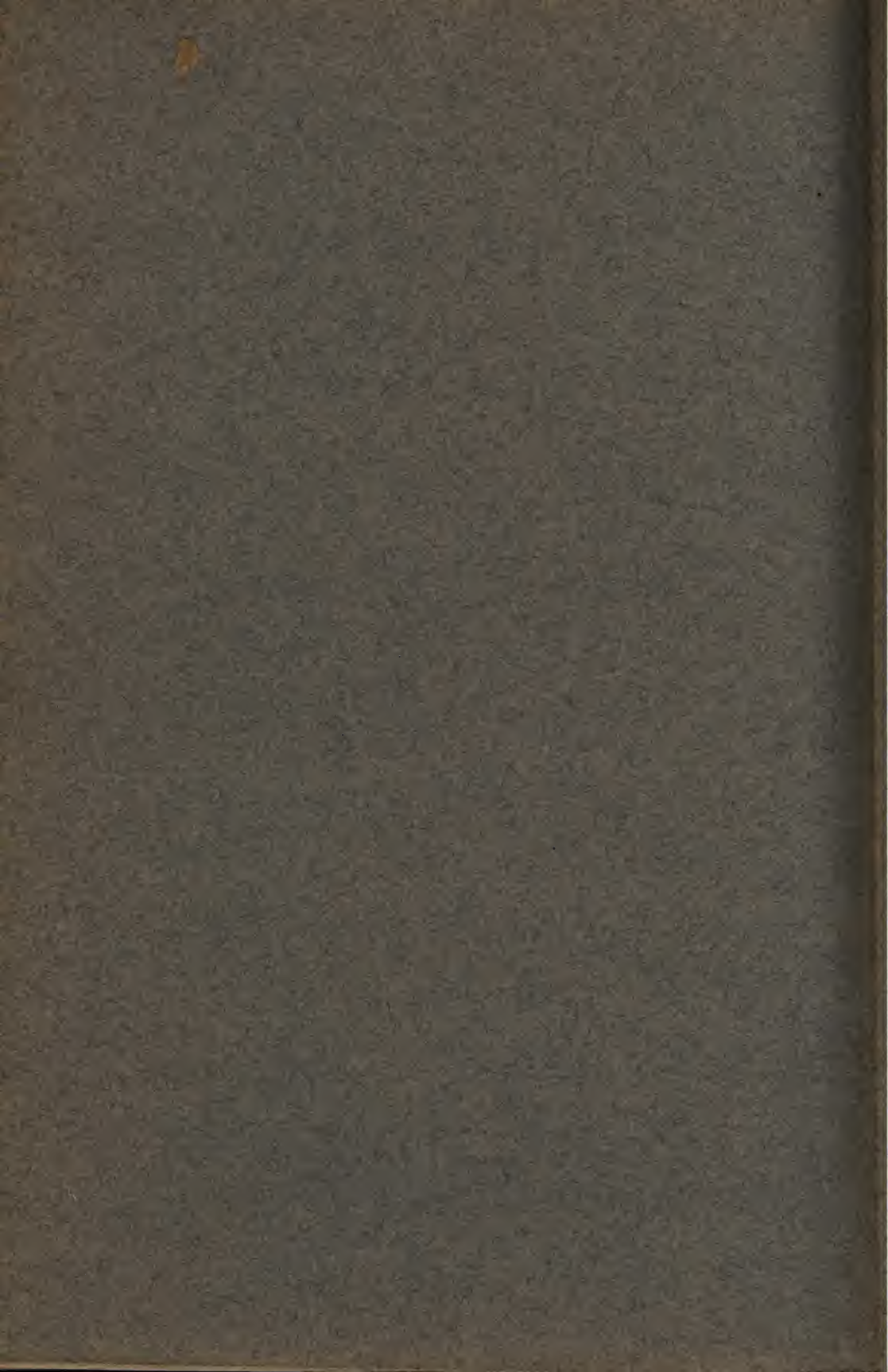


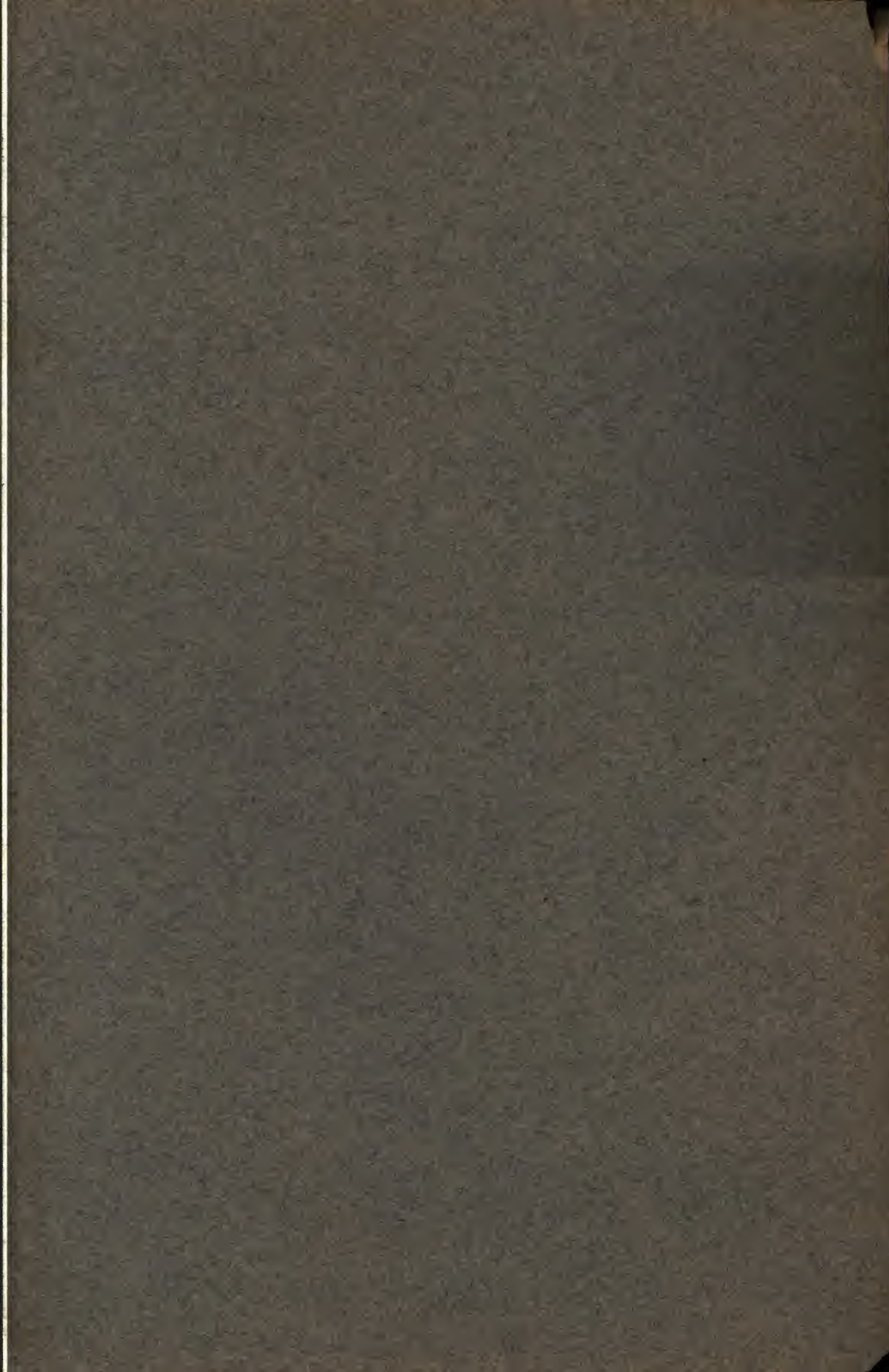


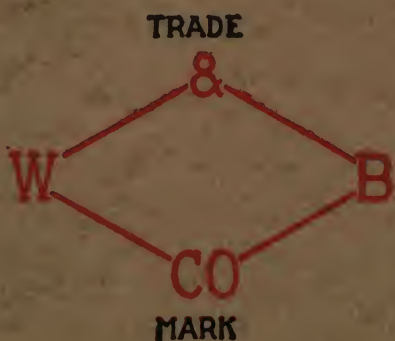












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